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Contributed Articles

Making Honey-Vinegar—How It is Done.

BY C. P. DADANT.

[Having received several inquiries regarding the making of honey-vinegar, we requested the Dadant's to write an article on the subject, as we knew they were experts at this business. The following is what we received, and will be read with much profit.—EDITOR.]

Vinegar, originally, was only sour wine, (vin aigre), but it is now made from all sorts of beverages, and the common vinegar of commerce is made by the distillation of wood (pyroligneous acid): Unprincipled dealers have been known to add, to the vinegar, water and sulphuric acid, a very injurious preparation. Our farmers, here, make all their vinegar from cider. In England it is made from malt, and even from beer. But the best vinegar is made from grape-wine or from honey.

Apiary of Mr. J. E. Enyart, of Gentry County, Mo.—See page 5.

In making our honey-vinegar, we always use a little wine, for two reasons. In the first place, it helps to make it. In the second place, as we are grape-growers, and make considerable wine, we often have remnants that lose in quality or become somewhat sour, and these remnants can only be utilized for this purpose.

In making honey-vinegar, we use only inferior grades of honey, such as honey-dew, or thin honey that has already fermented. We also use all the washings of our cappings. We have often noticed that many bee-keepers render up their cappings into wax without having previously washt them, and when we receive the beeswax from them, it is still sticky with honey. This does no damage to the wax, but it is a waste for the apiarist, and this waste is unnecessary.

When the honey is all extracted and the cappings well drained of their honey, so that they seem entirely dry, we put them into a large boiler with just water enough to soak them. This water is heated a little below the melting point of beeswax—say to 120°, or a little above this—to a point where you can just endure the fingers in it.

The cappings are stirred in this water, then the water is prest out. For this purpose, we use a very small cider-press, but the same work may be done almost as well with the hands while the wax is soft. The press goes faster and does the work more thoroughly. The water thus obtained looks dark and dirty, but if your cappings have been well cared for the only thing in them, to cause any residue, is the propolis, and we all know that there is nothing disgusting about it. After the vinegar is made, all this will disappear, without leaving any trace, as it settles in the dregs. The honey-water is now tested. We use a must-scale, but as our readers do not have such an instrument, we will give them an easy test, viz:

Take a fresh egg, and drop it in the liquid. If it floats, showing a portion of its shell, of the size of a dime, the liquid is of proper strength. If it sinks, you must add more honey, diluting it well, till the egg comes up. If the egg projects too much, add more water.

To make the vinegar from honey, we use from 1½ to 2 pounds to the gallon, according to the strength wanted. The sweeter the liquid, the stronger the vinegar, when made. But the weaker it is, the quicker it is made. The reason of this is that a small percentage of sweet diluted, changes more promptly into alcohol and into acid than a large quantity. If you put in too much honey, some of it may remain unfermented for a long time, and a very heavy solution would probably never all change by fermentation. The weaker the beverage, the quicker it sours.

Bear in mind that the fermentation of any sweet or any fruit-juice is first alcoholic, then acetic. No acetic, or vinegar fermentation, can occur till an alcoholic fermentation has taken place, and the more thorough the alcoholic fermentation is, the more thorough the acetic change will be.

After our honey-water has been made, we must induce the fermentation by some means. The temperature must be right, about 70° Fahrenheit, and it is best to induce by heating the liquid even as high as 90° or 100°, if it has not already been heated as above mentioned. A little of excess is not so injurious as a low temperature, provided, however, that you do not reach the germ-killing point—160° to 170°. If your liquid was heated to this point, it would have to stand till it had absorbed more ferment germs from the atmosphere, and this would be slow.

Most honey contains plenty of ferment germs, and it needs but little inducement to start the alcoholic fermentation. If, however, there is any delay a little fruit-juice, fresh grape-juice, fresh cider, or even a little yeast will soon give it a start. The liquid is put into barrels in a warm, sheltered place, the barrel being filled only about two-thirds, as the boiling of fermentation will cause it to rise and a full barrel would spill part of its contents. The bung-hole is covered with a thick cloth to keep the gnats and flies away.

If the vinegar is made during cool weather, it is best to keep it in a warm room, or in a cellar heated by a furnace. This is where we keep ours. But, if you have no place in which to keep it warm, and must leave it in a cool place till summer comes again, it will do no harm, but the vinegar will be that much longer in getting made.

If your vinegar making is carried on in a warm place, in the winter, where there is no fear of flies, give it all the air you can. Bear in mind that it takes oxygen, both for the alcoholic and for the acetic fermentation, and this oxygen is to be had only in the air. That is why wine-makers leave their casks open as long as the alcoholic fermentation lasts in the wines, but take good care to fill up the casks and bung them up tightly before there is any chance for the acetic change. We must, therefore, give our vinegar all the air we can, and if we want to make it rapidly, we must transfer it from one vessel to another as often as we can. Vinegar-makers pour their vinegar over beech-shavings, which assist in airing it, and retain much of the lees or sediment. But it is not necessary to go to all this trouble, for after the fermentation has been well started it will continue with more or less speed, according to circumstances, till good vinegar is produced.

After the alcoholic fermentation has been well started, it is easy to induce the acetic fermentation, by the addition of sour wine, or sour vinegar, in a small quantity. We make it a practice to always keep at least two barrels of vinegar, the one sour, the other souring, and we refill the one from the other occasionally.

If the vinegar is wanted clear, it must be rackt, by removing all but the lees, and the latter need not be thrown away, but may be used with new vinegar to help its formation.

Good wine or cider must not be kept in the same cellar with vinegar, as the germs of the vinegar, floating through the air, will induce the acetic fermentation very readily in the former.

Good vinegar usually contains millions of small animalcules which prevent it from having a crystalline appearance. These may be destroyed by heating to 170° and will then settle to the bottom with the lees or dregs. Let it not be supposed, however, that they are injurious, for millions of these are evidently consumed in every glassful of good vinegar, and one should beware of vinegar that does not contain any, for it is probably made of poisonous compounds that kill them. But it is lucky that our house-keepers do not have eyes gifted with microscopic power, or they would relegate good vinegar out of the domain of the kitchen.

The writer, at the North American convention, in St. Joseph, Mo., in 1894, met a young bee-keeper who had tried to make vinegar and had succeeded, but said that he had to throw it away because it was full of little snakes, which he had detected by holding a very thin vial of the vinegar in the sunlight. It must have undoubtedly been first-class vinegar, and he was very much astonisht to hear that he could with difficulty find any good vinegar that did not contain such snakes, unless it had been heated.

To help strengthen vinegar that is making too slowly, pour it over crusht fruits, grape-skins, apple-pumice, or even apple-parings, but, above all things, if you want it to make fast, be sure it has plenty of air at the right temperature. We have now in our house-cellar, three or four barrels of wine and honey-vinegar that has been a year in making, because it was not kept warm enough.

Hancock Co., Ill.

Introducing Queens with Tobacco Smoke.

BY DR. E. GALLUP.

In Gleanings for Nov. 1, Editor Root, in commenting on my method of introducing queens, says: "The use of tobacco smoke for the purpose of uniting or introducing, should be condemned, especially in the hands of beginners." Because, of their using it in fumigating their bees to keep them at home from county fairs, he thinks it injures the bees, etc. I can see quite a difference between fumigating sufficient to safely introduce a queen—say at the outside 10 seconds—or stupefying them sufficient to keep them at home all day. I strongly condemned the use of tobacco smoke for common purposes about the bees, years ago—I was going to say, before Editor Root was born, but I guess I will not, for I don't know exactly how old he is.

Now for what others say about introducing with tobacco smoke. A. I. Root, on page 188 of the "A B C of Bee-Culture, says:

"Immediately after the honey season the bees are apt to be out of sorts with everybody and everything, and at such times it is pretty hard to make them accept a queen. If ordinary methods fail, give them a little tobacco smoke—just enough to intoxicate them a little." A little further along he says: "I remember one year we received an importation of 50 queens; half of them were given to neighbor H. to introduce, while we retained the other half. Neighbor H. had entire success in introducing all of his, while we lost some four or five of ours. Both used the same methods of preparing the colonies. The difference was, that Mr. H. used a little tobacco smoke on every one he introduced, while we used none." So much for A. I. Root.

Henry Alley, in his "Thirty Years Among the Bees," page 39, recommends the bees to be fumigated with tobacco smoke, just before sunset. He further says: "I have no doubt that during the past 30 years I have introduced 50,000 queens with an average loss of not over 3 per cent. I have introduced 100 queens by this method in one hour."

Dr. Tinker, in his "Bee-Keeping for Profit," page 32, says: "If a queen is found balled rescue her. In this case it is no use to try again. She can only be introduced upon combs of hatching brood." Now right there and then I should be just mean enough to give them a dose of tobacco smoke, and give it with a good will, too. I would show them who was running the shebang! I guess Editor Root was "straining at a gnat," etc.

I have introduced more or less with tobacco smoke for the past 50 years, and have never in all that time lost a single queen when I used this smoke method. And, then, I think it quite an advantage, to know that we can take out the old queen and have a new one introduced safely in 15 minutes, instead of being three or four days about it.

I am not anxious to have every one adopt my plan. When bees are breeding rapidly, and gathering abundance of nectar, different plans will succeed. The loss of four or five imported queens would be quite an item with me.

Orange Co., Calif.

Bee-Economy—The Queen and Swarming.

BY PROF. A. J. COOK.

The replies to the inquiry on page 683 (last year) were a surprise to me. Were it not that so many of our wisest and most keenly observant apiarists—in fact, about all that record their opinion—seem agreed, I would think all were wrong. When I find such unanimity of opinion against me, I always conclude that very likely I am wrong, and I always study closely to see where I have erred. But in this case I can see a reason why all the others may be in error and I in the right. The inquiry implies that when a young queen goes forth to mate the bees sometimes swarm out with her. This point is conceded by all that express an opinion. I doubt the truth of the statement contained in the inquiry.

I should feel very certain that it is error were it not that so many, who have long been able students of apiculture and the habits of the bees, accede to the proposition. In all the old-time bee-literature we read that the queen leads the swarm. The very name "queen" is in this sense misleading. So we see that there is something in a name. The rose would doubtless smell as sweet with any other name, but men would often reason more correctly and be more sure to speak the truth were everything rightly named. The queen is in no sense a queen. She is often maltreated, killed. I do not believe that she ever leads forth a swarm. I have watcht at the entrance of hives scores and scores of times, and never yet have I known a queen to lead forth a swarm. She usually comes forth after most of the bees are on the wing, gyrating about the hive as they wait for her to come forth. They often begin to cluster before she comes out from the old home. This is not only true when the old queen goes out with a swarm, but in all cases observed by me it is equally true of the virgin queens that are to go forth to a new home and region. It is well to study the economy of the hive or its inmates before we conclude in such matters. Is it possible that this old, erroneous view has deceived the very elect?

The queen, I believe, never goes forth from a colony except to mate or with a swarm. She may go out two or more times to mate, and will unless she is successful the first time. In this case she goes not because a swarm is issuing, but for an entirely different purpose. She goes forth, circles about for a little, and starts off on her mission; which is to meet a drone and not to hie forth with a swarm. She is off before the swarm would be out, and of course if the few that might follow on—in case they ever do this—should accompany the queen, they would start off at once and not cluster. I have never known such an event to occur. Has any one?

Swarming is an entirely different matter. Impelled by too crowded quarters, or some other want of balance, the bees push out, but are not led by the queen, and before she comes forth, or soon after, they commence to cluster, and will be joined by the queen. The very fact that she is not among the first to come forth, seems to me to show that she has no plan of mating before her, but with the other bees, swarming is now in mind, and she goes forth to swarm; will cluster and behave as bees always do when intent on increase of colonies.

The inquiry is as follows: "When a young queen flies out on her bridal trip, the bees sometimes swarm out with her. Does such a swarm sometimes remain out permanently without returning? And if so, in about what proportion of cases?"

To answer fully as I believe, I would say: I doubt if bees ever swarm out with the queen as she goes forth on the marriage flight. When she goes forth to mate she goes alone and the bees remain behind and keep at their regular work. When they go with her, all have another purpose in view, and behave very differently. The bees lead forth, the queen follows: they cluster, and soon, unless hived, go forth to a place previously lookt up and prepared for their new home.

We all know that swarming is always preceded by such preparation hours before, and also that the bees behave very differently on the day that the swarm is to leave. Why should we conclude that the bees go out with the queen? Why not, rather, conclude that if the bees do accompany the queen, they were to go out to swarm, and she to accompany them, and not to mate.

Then, to answer the question, I would say: No; the swarm never goes out with the queen as she starts off to mate; but if they do go they all go as a swarm, and no mating at all is in contemplation as such times. In case a swarm goes out with a young virgin queen as they are very likely to do, in case the season is favorable and the bee-keeper does not work to prevent it, they will act much as does a first swarm with the old queen, that is, cluster, and, after some time of rest, fly forth to the new home.

The young queen is light and nimble, and very likely will fly further before clustering, and cluster higher. I have rarely known a first swarm to cluster more than five or six feet from the ground. I have known second swarms to cluster full 30 feet from the earth. This may have been simply accidental, but I think not. Old first swarms rarely go any great distance before alighting; while second swarms may go off several rods. I have known swarms to cluster for miles away from the apiary; and in more than one case to remain over night. In such cases I have believed that the queen was tired out, and that the bees halted to give her a rest.

It has often occurred to me that the queen seems an exception to all other animals in her habit of flight. If we should not use any special muscles for days, not to say months or a year, we would find it difficult to exercise. The queen may have been without use of her wings for a full year, and yet she goes forth with the swarm to fly perhaps a mile or more, and often flies with great rapidity. The fact of the long flight of the virgin queen is hardly less a surprise. She may never have tried her wings, and yet she goes forth for a long trip at the time of her first flight. I have wondered if the clustering habit was not because of this exceptional feat on the part of the queen-bee. We can well understand that the queen would need a rest. The clustering for an hour or two after her first short flight would fit her the better for this new kind of experience.

I have stated above that the new home is always sought out and prepared sometime before the swarm issues. It is possible that I am hasty in coming to this conclusion, but I have positive evidence that it has occurred on several occasions, and as we know that bees act about the same at all times and in all places, I conclude that bees always have their home in readiness before the swarm issues from its old home. In one case I saw bees cleaning out an old hive in such numbers that I thought a swarm had entered it; soon they all left, and the next day a new swarm came to that hive. Another case that I knew, the bees about 11 o'clock were seen in one side of a building, flying in and out through a hole, in such numbers that it was supposed a swarm had taken possession of the place. Soon all the bees left, but in the afternoon a large colony came and took possession of the place.

I have known several such cases—enough to convince me, if not enough to prove that this is always the case.

It were well if we knew exactly the cause, or causes, that lead to swarming. There is but little doubt that crowded quarters, and the discomforts arising from such condition is a chief cause. Yet every extensive, observing bee-keeper has known swarming to occur when there was no great crowd of bees; and rarely when there were frames without comb. It is not infrequent that bees leave the hive when it is depleted of honey, or when it is foul with the excreta from diarrhea in cases of disastrous wintering. It would seem as if discomfort might be the one impelling cause of swarming, even though the unrest was due to abnormal cause.

The honored Mr. Quinby's desire for a queen that would produce bees void of the swarming instinct has been shared by many since Mr. Quinby exprest it. If we knew that discomfort was the cause, we would study to forestall all discomfort, and so attain the desideratum. Even if unrest, natural or from disastrous consequence, be the cause, we need not despair breeding it out. We know some people possess marvelous fortitude, and keep their equipoise, even when darkest clouds threaten; there is no reason to think that bees may not differ in temperament, as well as human beings. I have no doubt but that such is the case, and have full faith that this and all other desirable qualities await development at the hands of the wise, painstaking, patient breeder of the denizens of the hive.

Los Angeles Co., Calif.

Yellow Sweet Clover—Melilotus Officinalis.

BY MRS. L. E. R. LAMBRIGGER.

When I first began talking up sweet clover, I used the words "sweet clover" only, not dreaming that people in general were ignorant of the fact that there are two varieties, but I am beginning to learn that a writer cannot plain his statements any too carefully.

From letters in the bee-papers, as well as private letters received; also from remarks dropped by prominent bee-men, I am led to conclude that very few people know anything about *yellow* sweet clover, while the few who do seem to eye it with suspicion.

If there is one trait upon which I pride myself more than another, it is that of accuracy. I never intend to write anything for the press that I have to take back afterward; I may commit such a blunder sometime, but never have yet. Now for the subject in hand.

I am indebted to Mr. M. M. Baldridge, of Illinois, for a copy of his bulletin (No. 1) on White Melilot. I am perfectly familiar with the plant, and wish to say for that gentleman's benefit, as well as all others interested, that while what he claims for it is perfectly correct, the yellow melilot will do all that the white will do, and—*more*. I have sent him a packet of the seed, and feel confident that in the near future he will issue a bulletin holding forth the merits of *yellow* sweet clover.

In speaking of this plant I can do no better than to reproduce, or repeat, if you please, what I said of it in the Nebraska Farmer, under date of Oct. 15, 1896.

Each seed produces many branches (or stools, if you prefer), and each branch produces a flower-spike. It does more than that, since every branch sends out many branchlets, and each branchlet throws up a flower-spike also. Hence it will be seen that the number of blooms *one plant* is capable of sending forth mounts into the hundreds.

The white variety is more erect and tree-like in habit than the yellow; produces fewer spikes of bloom, and its stems are more woody; for honey purposes, we would prefer one acre of the yellow to four of the white, while for hay and pasture one acre of the yellow is preferred to a dozen of the white. Now, of course, this broad statement is based upon the difference in behavior of the two varieties here in northern Nebraska.

The aromatic odor of the two is identical, and to me extremely pleasant, therefore I cannot understand why any one should accuse it of making the "atmosphere stuffy," as has been done more than once in Nebraska during the past year. If any bee-keeper can endorse the accusation please let him be heard from.

In quoting from my article, Dr. Miller asks, in Gleanings, "Now who can tell us something more?" referring to the value of the yellow. Present indications are that no one seems in a hurry to speak out; are we to infer that they don't *know?* The best thing you can do, Doctor, is to obtain some of the seed and try it yourself. Seeing is believing, unless we happen to have a faulty vision, which I do not think is the case with our genial Dr. Miller. In his valuable little book, "A Year Among the Bees," he states that his attempts at providing bee-pasturage have not been attended with much success; melilot, figwort, cleome, buckwheat, and others, having failed to respond to coaxing. Now I can arrive at only one of two conclusions regarding the *why:* Either that natural conditions for honey-production are far better in some times unfortunate though much maligned Nebraska than they are in my native State, or—that the Doctor, while he may be an excellent physician and a successful bee-keeper, must be lacking in those qualities which go to make up a clever horticulturist. Better come to northern Nebraska, Doctor, where Nature sows the seed, waters the plants, and matures the crop, independent of man's aid.

We are wintering our bees on their summer stands, with abundant stores at their command. If they come through all right, I will tell you how we fixed them; if they don't, I may keep still. Knox Co., Nebr.

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The Bee Journal—Amalgamation—Experiences with Swindling Commission-Men.

BY C. THEILMANN.

With the permission of the editor of the American Bee Journal, I would like to say a few words to bee-keepers, some of which will be new, interesting and beneficial to them.

This is the time of year to renew or subscribe for our bee-periodicals, as we have ample time to read and inform ourselves during the long winter evenings, especially those who have to perform their work in the daytime. I would advise all bee-keepers to take the American Bee Journal, not because it is the oldest bee-paper in America, but because its editor is the right man in the right place for the fraternity; his ambition and character are just what we need. When I say this, I am not flattering the editor, for these are real facts, which prove themselves to every one who has read the American Bee Journal for at least the past four or five months. Mr. York has saved the bee-keepers, this season alone, thousands of dollars on their honey crop, by exposing, *fearlessly*, the dishonest commission-men, in the American Bee Journal, even at the risk of being prosecuted for libel, which was threatened a number of times. No one in our whole fraternity knows this any better than I do. No other bee-paper came to the front to expose the swindlers before the Bee Journal did. Some held back for awhile, while others even *advertised* for the thieves and swindlers *after* the publishers were notified that they were swindlers. But the Bee Journal stood for the rights and benefits of its readers, therefore subscribe for it.

UNITING THE TWO UNIONS.

There is another subject on which I would like to say something, namely, the amalgamation question, of which considerable is said, and some of it I am sorry has made unpleasant feelings. This, of course, is not very nice. I, at first, was against uniting the two societies, because the old Union had a nice pile of money in its treasury to share with the New Union, which had very little. But since the New Constitution was adopted at Lincoln, I can see no reason why we should not unite, for we have everything we had before, and more, too; and if we can see improvements can we not adopt them later? Let's set aside all quibbling, and go on with the main object in view, and we will have a strong Union. Many are waiting to join the New Union, and pay in their dollars to put down and keep in check the swindlers and adulterators who rob us of the result of our hard labor.

EXPERIENCES WITH SWINDLING COMMISSION-MEN.

I have just returned from Chicago, on my third trip to secure something for a carload of fancy honey I shipped their last August to a commission-man. The honey was received in fine condition, but the man refuses to pay for it, although the honey was all sold, according to his own statement, on Aug. 28. I have had a number of lawsuits about it, and finally secured a judgment the last time for $1,423.60, but I don't know whether it can be collected. I have had lots of trouble about it, and $165 expenses so far, besides being unjustly arrested twice for alleged "stealing" of the "statement" that was given me for my honey! They also sued me for $10,000 libel, for which I had to give bonds, in all for $11,500; and if I hadn't had a good, rich friend in Chicago I would have had to go to jail. I was ashamed at first to think that I was caught in this way, and tried to keep it silent, like hundreds of others who never tell of their losses in this way; but it would be far better if every one would make it public, as a warning to others, even at the risk of being laught at by jealous and envious persons.

The reader will be surprised when I say that I was told, on good authority, that the producers and shippers alone have lost $188,000 by the commission-men on South Water street, Chicago, this year, although there are good and reliable men on that street.

Some think I was not careful enough to whom I sent my honey. That may be correct, but I had sent the same man big shipments of honey heretofore, and he always did as he agreed. Why should I send to a new man, whom I didn't know?

The following will show you how bold those swindlers become:

One of my neighbors consigned 2,200 pounds of honey to a friend of his in Chicago. This friend sold the honey to a commission-man, cash on delivery. When the honey was at the store he went there and demanded pay. He was told that he (the buyer) had a month's time to pay in. At last he was told to go to the office, which he did, and a quarrel was the result. He decided to take the honey away, but when he got there to do it, the honey was gone. He immediately telegrapht to the shipper to come down, and when he arrived the commission-man told him that he had sent him a check the day before. This was disputed, and ended in a quarrel. A revolver was secured by the bee-keeper, and the money demanded again, with no result. An attempt was made to shoot, and this was the last the bee-keeper knew, until he found himself thrown out on the street; and this is what he got, too, for his honey.

A man from Wisconsin sent 8,000 pounds of honey to a Chicago commission-man, and not hearing anything from it for awhile, went to look it up, and found his honey was gone. He couldn't collect a cent. This honey was all his support for five little children and a sick wife at home. The tears ran down his cheeks while he stood in the streets of Chicago.

While my neighbor stood at the store of a commission-man, another bee-keeper had a lot of honey there for sale. They swindled him out of it while he was right in sight of it. He didn't get a cent.

Detective Eddy went with a shipper from Iowa, who claimed $239 from Terrill Bros. In their office Terrill drew a long-handled knife, and threatened to stab Eddy, after having closed the door. The creditor begged for his life, and to let him out, when he would give him a receipt for what he owed him.

Eddy was offered $50 to get another man from Wisconsin out of town, who had sent Terrill Bros. a lot of cheese.

Many shippers have taken legal steps, and, as a rule, with no satisfaction. The saying is, "With many dogs the rabbits are dead;" and "One man is no man." But if all the bee-keepers would *unite*, they could accomplish what no man can do alone. Wabasha Co., Minn.

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Selling the Crop of Honey.

BY C. A. BUNCH.

I always aim to have my comb honey stored in first-class V-grooved basswood sections, and take it to market in double-tier 24-section cases. My market for comb honey is at the towns and cities in driving distance from my home, and I sell to grocerymen or restaurant keepers for the cash, but never sell comb honey to commission-men.

The price may be low, but to sell comb honey seems to be an easy matter, if the sections have the propolis nicely scraped off. I always use tin separators, and have the comb built nice and straight in the sections, as a nice section of honey helps to make the sale. To build up a trade for the bee-keeper, I think it pays well to stamp the section with a stamp giving his name and post-office address.

To introduce and sell extracted honey to the same people that had for the last eight or ten years been buying my comb honey was quite another thing, and hard for me to do, and, for that reason, my extracted honey I shipt mostly to the large cities to be sold on commission, and of late years at a ruinously low price.

The mistake I had made in trying to sell extracted honey to grocerymen was in trying to sell in large quantities (60-pound cans), instead of using small receptacles to get a trade built up for liquid honey. So, at last, I tried the one-pound square glass jars, with a neat label on each; this did the business.

I have the jars of honey crated so they will not break, and take them right along with me to market. I go into a grocery, and at the leisure of the proprietor I show him my package of honey, and explain to him how neat it is, and how heavy and ripe the honey is. I tell him that it is just the same as other honey, only it is out of the comb. If a sale cannot be made otherwise, I sometimes leave a dozen jars for him to sell, to be paid for when sold.

When I have made a sale, I bring in the honey, and with a clean cloth I wipe the dust off the jars and set them on the counter, or set them in line on the show-case to attract attention, as they should make a nice display so as to sell in a few days. This will please the grocerymen, as you will readily see.

To hold your trade, sell strictly pure honey, ripe and rich; do business always on the square, and get acquainted with those you sell to.

There, now, fellow bee-keepers, I have tried to tell you in my poor way how I have been somewhat successful in disposing of my crop of honey. Marshall Co., Ind.

Apiary of J. E. Enyart, Gentry Co., Mo.

BY J. E. ENYART.

The picture herewith shows the rear end of my hives, which face east. At the right is my honey-house, but I have a larger one at present. I have several kinds of hives, and the picture was taken with shade-boards on them.

I was born June 7, 1861, in Daviess county, Mo.; I went to the district school all of my spare time from the farm during winters. My parents removed to Gentry county, Mo., in 1865, where I have remained ever since.

I remember well when I found my first bee-tree, by mere accident, that gave me the bee-fever, in 1872. After that I hunted bees all of my spare time in July and August, and found several trees each season, as year by year went on.

I married Miss Adaline Groves, Aug. 29, 1882. Our son, born Aug. 9, 1883, is seen in the picture.

I had a love for bee-keeping, so in the spring of 1888 I began in earnest, by getting some improved hives, and transferring bees from log-gums and box-hives. I had fair success that season in getting honey, but was not successful in keeping comb honey; I remember when I opened my nice, clean box and found my nice section honey nearly ruined by the moth-worm. Then I sent for "Langstroth on the Honey-Bee," revised by Dadants, which is a fine work. I also purchased several other good bee-books; ordered the American Bee Journal in 1891, and have been a constant reader ever since.

I have had several good crops of honey, and have received fair prices for it. My wife and son are a great help to me in my apiary. Gentry Co., Mo.

Season of 1896—Comb Honey vs. Extracted.

BY C. DAVENPORT.

The past season in this locality was a fairly good one for honey. Basswood was an entire failure, although it blossomed in great profusion, as did fall flowers of many kinds, but they also failed to yield any honey except wild buckwheat; from this a small amount was secured. The surplus was gathered from white and Alsike clover, and from those colonies in good condition, which averaged about 60 pounds of comb honey. Last year, for the first time, there was considerable Alsike clover around here; this yielded well, but the honey from it is not equal to that from white clover.

Although I have always produced comb honey principally, I have for a number of years had a leaning towards the production of extracted, and have read with much interest what has been written about the profits of comb and extracted honey. But these reports were very conflicting, especially in regard to how much more extracted could be produced, some claiming that twice as much extracted honey could be secured, and from this on down to one or two who claimed that there could be as much, or very nearly as much, comb honey produced as extracted.

In order to find out something about this, as well as the difference in the amount of labor required in the production of the two kinds, I conducted an experiment the past season that may be of interest to some who have never produced both kinds of honey. At the beginning of the season 40 colonies in good condition were selected—20 of them were used for the production of extracted honey, and the other 20 for comb honey. The hives were all 8-frame except five, which contained 10 frames. The latter were all put among those run for extracted. A careful account was kept of the amount of honey stored by each set. In the beginning an effort was also made to keep track of the amount of work required by each set, but this was soon given up as impracticable, but I will say more of this later. With the 40 colonies no effort to prevent swarming was made, except to give them plenty of ventilation and surplus room. Of the 20 run for comb honey, 11 swarmed; these were each hived in a new hive on the old stand: all the bees left on the combs were shaken off and allowed to run in with the swarm. The combs of brood and honey were then given to weak colonies, nuclei, etc., and no further account taken of them.

Of the 20 colonies run for extracted honey, 7 swarmed, and 3 of these were from the 10-frame hives! These 7 swarms were all treated the same as the others.

Perhaps I should say that the frames on which all swarms from both sets were hived had only small starters of foundation in them, for in producing comb honey in this locality, at least I was, until the past season, convinced that more white honey could be secured in the sections if swarms (either natural or artificial) were hived on frames with only small starters of foundation, for then if the supers from the old hive in which work had been commenced, or if there was none on the old hive, one containing two or three sections with partly or fully drawn combs and the rest with full sheets of foundation is placed on the hive soon after the swarm is hived, work will be commenced in it at once in a fair flow, and, as fast as comb is built below the queen will surely keep it full, or nearly full, of brood, so that, of necessity, most of the white honey is stored in the supers, providing the swarm issued at or soon after the beginning of the white honey harvest, and this is the usual time for swarming to occur in this locality.

On the other hand, when full sheets of foundation are used in the brood-frames, a swarm will draw it out much faster than the queen can lay, and then all the way from 15 to 30 pounds—the amount, of course, varying and depending upon the queen and character of the flow—of white honey stored in the brood-frames. But there is one serious objection to this plan of using only starters in the brood-frames, and that is the large amount of drone-comb that will sometimes be built, especially with an old or declining queen. I have had some cases where swarms would in this way rear fully as much as four frames of drone-brood, and at this season, no matter how much drone-comb is built, the queen usually lays eggs in the most of it, and at least one generation of drones is reared. This a serious loss, for I believe sealed drone-brood weighs as much as sealed honey; so in cases where two or three frames of drone-brood are reared, it is at a loss of from 10 to 20 pounds of white honey—perhaps more, for I have based my figures on the supposition that a pound of sealed honey will produce, or is equal to, a pound of sealed brood. But my opinion is that it takes in the proportion of at least two pounds of sealed honey to equal one pound of newly-sealed brood, and if I am right in this, it would give us from 20 to 40 pounds of honey that would in some cases be used in rearing useless drones, and this, too, allowing that only one generation is reared, when the fact is, there are often more. The cost of full sheets of foundation would be small in comparison with the amount that is lost, when a large amount of drone-comb is built.

Last season I also conducted some quite extensive experiments in this line by hiving both natural and artificial swarms on frames containing full sheets of foundation, and others on frames with only small starters. The results of these experiments have left me in doubt as to which is the best plan, although the swarms hived on full sheets gave me, on the average, much the best results. But last year we had a long, but at no time very profuse, flow from clover. In a short, profuse flow, like we generally have from basswood, I believe the swarms hived on starters would have given the best re sults, for in a short flow, that only lasts 10 days or so, a swarm on empty frames has not time to consume much honey in rearing drones.

But I have gotten so far away from what I started out to tell, that this will have to be continued.

Southern Minnesota.

CONVENTION PROCEEDINGS

Proceedings of the Illinois State Bee-Keepers' Convention Held in Chicago, Nov. 18 and 19, 1896.

BY A SPECIAL BEE JOURNAL REPORTER.

[Continued from page 838.]

SECOND DAY—Forenoon Session.

The convention was called to order by Pres. Miller at 9:30 o'clock, and Mr. Jas. A. Stone offered prayer.

SELLING HONEY THROUGH COMMISSION-MEN.

Ques. 11.—Should we encourage selling our honey through city commission-men?

Dr. Miller—This is the next practical question. Who knows? I will ask you straight, How many think we should sell our honey through city commission-men? [One]. How many think we should not encourage it? [Eleven].

Mr. Ellis—Does that question refer to Chicago?

Dr. Miller—I suppose the spirit of the question would be answered exactly if we should say Chicago. Sending our honey from home to the large markets would be the general idea. I should say, if you can sell your honey yourself, you better do so, because the chances are you will get more money for it and be more certain of it; but if you are not a salesman, you may do better with commission-men.

Mr. Grabbe—I believe we have some reliable honey-dealing firms here in Chicago who would be perfectly safe to ship honey to, and you would get your pay for it, but I think the majority of them here at present are not reliable. A bee-keeper near St. Louis, wrote me a short time ago that he had about 5,000 pounds of extracted honey which he thought of shipping to Geo. T. Wheadon & Co., of this city. I advised him not to ship it, as they were considered a fraudulent firm. It was a few days afterward, that I received a letter from another gentleman who had shipt them 10 cases of extracted honey, amounting to very nearly $70, and they were to remit at once; they agreed to buy this honey outright—there was no consignment about it; they were to pay him seven cents cash for it, on arrival. The bee-keeper informed me he had shipt the honey, but they had not remitted to him, which they should have done some time ago. I wrote him that it was considered a fraudulent firm. He sent me an order a few days ago to get his money for him, but when I went to see about it there was no firm there, but I found one of the men who had workt for them. It was not Wheadon at all who did the business, but a man by the name of Terrill, who was the proprietor, and only used Wheadon as a figure-head; he got the consignments and did the buying through Wheadon, and I understand that they sold thousands of dollars worth of produce and never a dollar of it returned to the shipper. They closed out the last of October, I believe, and I was told that Terrill had gone to Canada, but where Wheadon is, I don't know.

Dr. Miller—Perhaps the pertinent question is, shall we do all we can to have all the commission-men killed? [Laughter.]

Mr. Ellis—Killed, or relieved of the pressure of too much goods for this market? Of course, we can do that ourselves by selling somewhere else, and we can reach customers which they don't reach. There has been considerable honey taken from here to Wheaton, Ill., and west of Wheaton, and so on, and in smaller markets, which does not interfere with the sales here at all, and we will get more money; and those who sell outside will get more money also.

Dr. Miller—How many are here, who, within the last two years, have shipt any honey to commission-men? [Only one]. There is one thing, if honey is never shipt to them, it can't do any particular harm.

Mr. York—There are a great many bee-keepers who do ship honey to commission-men. I find there are some who ship honey to commission-men that have been exposed as frauds in the bee-papers, and still the shippers read the bee-papers! I find, also, that after I have publisht a firm as fraudulent, bee-keepers who read the Bee Journal write me and ask about them, whether or not they are responsible! I think, however, in the majority of cases those who ship to dishonest honey commission-men are those who do not read the bee-papers. I have tried to do what I can to expose the fraudulent firms, although *I* was "taken in" last year (1895) by advertising, and immediately denounced them; and this year I commenced good and early on the same firms, as well as on Wheadon & Co., although two of the bee-papers publisht page advertisements of the latter fraudulent firm. One bee-paper advertised for them even after I had publisht them as frauds, so there was no excuse for that. Of course, these firms all pay their advertising bills promptly, and it may be that some publishers were anxious to get cash. But we all know it does not pay to encourage crooked firms, no matter how willing they are to pay. I think it not best to encourage shipping to the general run of commission-men. I know there are a few honest firms, but I think, as Mr. Grabbe says, the majority are inclined to take advantage of the shipper, not only in the honey-business, but any other line of produce. I think we ought to discourage shipping to commission-men as much as possible, and encourage the selling of honey in the home, or near-by, markets.

Mr. Grabbe—These parties near St. Louis, whom I mentioned, never subscribed for the American Journal. I told both of them the American Bee Journal had publisht Wheadon & Co., as fraudulent, and one of them would have saved his $70 if he had been a subscriber. Since then, he has told me he subscribed for the Bee Journal, but it is too late.

Mr. Baldridge—I should discourage shipping to commission-men. What I mean by that, is something like this: Honey should be sold at home, in the home markets, or sold direct to city purchasers, who will pay cash on delivery—in other words, buy it right out.

Mr. Grabbe—It is best to sell for spot cash on delivery. But what assurances has the shipper that he would get his pay, if spot cash on delivery were agreed upon?

Mr. Green—Let him ship with sight draft attacht to bill of lading; then he is perfectly safe.

Mr. Grabbe—That may be true, but what if the firm refuses to cash the draft after the honey gets here? What will be done with the honey, then? The railroad company is not responsible; they turn the goods over to the consignee. I have sold carloads of goods, with that same attachment to the bill of lading, but the other party got hold of the goods, and the draft was returned, not casht. I think it was a California bee-keeper who shipt a carload of honey to a firm here who could not cash the draft, and the shipper immediately telegrapht to another firm to take the honey. Of course it was then at the mercy of the other firm; I do not know whether he got anything for his honey or not. Also, I would say, while on this subject, that a certain honey-buyer in this town went to a commission-house to buy honey, and he dealt with the principal member of the firm, who sold him the honey and pocketed the money without giving a bill, or anything at all. The buyer walkt off with his honey, and the commission-man pocketed the money, and I suppose he never made any returns. That is one way the crooked commission-men do business. I really think what we need here is a honey exchange, or at least some firm with plenty of capital that can sort of control the honey product, either buy it up or have it, shipt to them subject to sale, or something of the kind, so that these dishonest people can't get hold of the honey, and then let bee-keepers ship only to this one firm. I suppose one good firm in Chicago could handle all the honey for the city, that is, one wholesale firm.

Mr. Ellis—Do you know how much was shipt to Chicago last year?

Mr. York—As nearly as I could discover, there were 1,200,000 pounds of honey put on this market last year; of course, there may have been a little more, but I think that is nearly correct. Don't you think, Mr. Grabbe, that is about right?

Mr. Grabbe—Yes.

Mr. York—One firm handled 20 carloads. Of course I could not find out exactly how much Horrie & Co. handled, but I understood they sold quite a good deal; they were a little backward in telling just how many car-loads, but I am sure they handled a great deal, and made small returns for the most of it. I am still receiving complaints against them on last year's sales. One bee-keeper in New Mexico shipped them a carload of honey, and he lost about $1,000 on it; of course, that went into the pockets of Horrie & Co. Yet, they did make returns on some shipments, but at a very small figure, by selling at a low price. One commission-man will often buy of another. Horrie & Co. sold the finest white comb honey at 8 to 9 cents a pound to another commission-man. Now when they sell honey at that price, you can easily see they would not make very big returns to the shipper, after taking out their commission of 10 per cent., also cartage, etc. Their cartage charges were something exorbitant—sometimes two or three dollars for moving 500 pounds of honey from the depot to their store. I think the commission-man has every advantage of the bee-keeper.

Mr. Stone—I think there is only one solution to this question. Mr. Grabbe makes a statement in regard to having one house—whatever name you are a mind to give it, call it a commission-house, or a club-house, or a honey exchange—but there is only one way to get the information before the people, and that is, if there is a honey exchange, nobody would know it if they did not take a paper. During the Springfield convention, this same question came up. There was a neighbor of mine, over in the next township, who always had a good lot of honey, and I thought from reading the bee-papers, the price at Springfield would be just about 15 cents per pound for comb honey, I went to every place, where I had been in the habit of selling, and this gentleman had been to every place I went, and was selling honey at 12½ cents per pound, when he could just as well have gotten 15 cents per pound, if he had had the information that he might have had by reading the papers, because it was only a short time until honey demanded from 15 to 18 cents per pound; and he spoilt the market because he did not read the bee-papers. He was not at the bee-keeper's convention when I made the statement, but afterwards he took the Bee Journal and Gleanings also. It was just for the lack of information, as to the supply of honey. But I believe with all the advantages we could have of handling honey, it will not help anybody if they are not right up on this question. It is just as important for a bee-keeper to keep up as for the farmer or horticulturist to read up, to know what the supply or demand is of their products.

Dr. Miller—You should use some discretion in the matter. This thing of piling all the honey into the city markets, and neglecting the home markets, is wrong. Now, the commission-men are not to blame for that. Don't let us censure them; honey-men should let them know what amount they have on hand. It is a fact, and should be pretty well understood, that you are at the mercy of the commission-man. When you send your honey, it may be in fine condition; but it may be received in bad condition. They can *claim* it is in bad condition, and you can't help yourself. They can sell it for any price they please and report in the same way. You are at the mercy of the commission-man, understand that, fully. Now, what of it? You must *know* the man you send honey to. You must be thoroughly sure that you send to an honest man, or else don't send. I don't know whether I shall ever send another pound to a commission-man. I think I can do better. But there may come a time when I can see that in the Chicago market I can get more money for my honey than I can by selling it at home, or by sending it off somewhere else. It may be, that I cant' very well get rid of my honey satisfactorily. When that time comes, it is some little comfort to me that there is a solid firm like R. A. Burnett & Co., to whom I can send, if I must send. So I believe it is a good thing if we can have a few reliable commission-men. There is the point, we must know they are *reliable*. Don't send to anybody you don't know about. But I do believe it would be a good thing, if we could have a few reliable commission-men, when we must send on commission. But let us not consider that the first and only thing to do with our honey is to send it to commission-houses.

Mr. York—I think I can see how one may find out about the responsibility of commission firms. I think the Bee-Keeper's Union should be able to supply such information. The Union should make it a part of its business to learn the standing and reliability of all firms dealing in honey throughout the country, and that would be a great advantage to a member, to find out before shipping, no matter to what market. I think the bee-keeper could afford to pay a liberal membership fee to the Union, to be able to find out from it concerning the responsibility of honey-dealers.

Mr. Stone—Mr. York's suggestion is just right. But how are we going to get it from the Union, excepting through the bee-papers. Now we have known of these frauds that Mr. Grabbe speaks of, and if we have read it, we know enough not to send our money to that same firm. The bee-papers should tell us who the good firms are. We should read the bee-papers. That is the point I wish to make. It is through the reading of the bee-papers we know what is going on. Of course we need a place to send our honey to when we have a surplus. And the bee-paper editors *should* know the best dealers.

Mr. York—Yes, the bee-paper editors know a great deal(!) but they don't know everything! It is very difficult to find out about some firms until some bee-keeper squeals. Now, *I* cannot know whether a certain firm is going to send circulars through the country, until after the firm sends those circulars out, and as they don't send one to me, how am I to know that it is trying to get honey from bee-keepers? So I have invited all bee-keepers to send to me such letters or circulars as may come to them, so I may be able to investigate and report.

Mr. Stone—The American Bee Journal is continually warning bee-keepers against sending their honey to fraudulent firms, and if they see something that looks as if they are going to get a big price for their honey, they ought to understand that there is something wrong.

Mr. Grabbe—Mr. York has sacrificed a good many hundred dollars by not taking advertisements of certain commission firms. One firm here, who are rated very high—as high as almost any one on the street—has been refused the privilege of advertising by Mr. York. Their pay is good, and they have tried several times to give him advertisements, and I think they really do as they agree to in most cases, but there are several parties that have been beaten by them, and so Mr. York won't take their advertisements. I think Mr. York is taking the right course, and the American Bee Journal can be taken as authority, that all who advertise in it as buyers or commission-men are reliable.

Mr. Green—While we feel entirely satisfied as to the reliability of Mr. York in the matter, we must remember that he cannot afford the time, and probably cannot afford the money, to investigate these firms as thoroughly as they should be. If we had a bee-keeper's union which made that its business, there would be time and money for looking up these facts, to find the standing of parties, which information could be furnisht to the bee-keepers.

Mr. Grabbe—There is one firm here on the street that is reliable. They had on hand two carloads of honey, and I had a friend, who wanted to ship some honey to them, but they would not accept it, saying, "We have two carloads, and it is all we can sell to our trade, and we can't do justice to more." There are some honorable firms who would not take a consignment when they have all they can control.

(To be continued.)

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

* * *

The Alsike Clover Leaflet consists of 2 pages, with illustrations, showing the value of Alsike clover, and telling how to grow it. This Leaflet is just the thing to hand to every farmer in your neighborhood. Send to the Bee Journal office for a quantity of them, and see that they are distributed where they will do the most good. Prices, postpaid, are as follows: 50 for 25 cents; 100 for 40 cents; or 200 for 70 cents.

* * *

The Names and Addresses of all your bee-friends, who are not now taking the Bee Journal, are wanted at this office. Send them in, please, when sample copies will be mailed to them. Then you can secure their subscriptions, and earn some of the premiums we have offered. The next few months will be just the time to easily get new subscribers. Try it earnestly, at least.

* * *

Bee Journal Complete for 1896.—We have a few complete sets of the American Bee Journal for the year 1896, which we will be pleased to mail to any one for 75 cents each, so long as they last. A "Wood Binder" to hold the year's numbers will be sent for 15 cents extra. Think of it—only 90 cents for last year's volume of the Bee Journal and a binder—848 pages!

* * *

Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offer on page 13.

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Established in 1861
Oldest Bee-Paper in America

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Editorial Comments.

Volume Thirty-Seven of the American Bee Journal opens with this number. Soon it will be two-score years since the talented Mr. Samuel Wagner began to publish it as a small monthly. In 1881, Mr. Thos. G. Newman—who from 1873 to 1892 was its tireless helmsman—changed it to a weekly. Ever since it has not failed, we believe, to appear "on time" each week. In the 16 years a few over 830 numbers have been issued, amounting to over 16,500 printed pages of apiarian information. That represents considerable mechanical labor on the part of the publishers during all those 16 years.

By the way, this month Miss Mattie C. Godfrey completes her 14th consecutive year as typesetter on the Bee Journal. She is as steady as the best time-keeper, and probably has "set up" in type the contributions of more apiarian writers than any other person in this country. It is mainly owing to her careful expertness that the Bee Journal is usually so free from typographical errors, for she has been able, until the past two years, to put into type nearly all that has appeared in its columns. Since its enlargement, just two years ago, more or less extra help has been required. But "Miss Godfrey" still does her share, and does it well.

We are glad to give the foregoing paragraph, for it is entirely deserved by one of the truest, most conscientious and faithful helpers with which any employer could be blest.

◆

Shipping Comb Honey.—About the middle of December we had some actual "experience" in receiving a shipment of comb honey from Minnesota in a smasht-up condition. It has made us feel a little sympathetic toward commission-men, or those who handle comb honey in any way.

There was about 2,300 pounds of white comb honey in 24-pound single-tier cases, that had come about 500 miles by freight on the Chicago & Northwestern railroad. It was not crated as it should have been—say about 200 pounds (8 cases) in a crate with handles at each end, and with straw or hay in the bottom and at the ends to prevent jarring when switching or starting the train, in handling, etc.

Well, we got it from the depot, and when we gazed at the broken-down combs our heart sank within us. We could hardly believe that any one nowadays would think of shipping comb honey in that way. But there it was—a leaky, sticky, dauby job ahead of us.

We started in, and with some extra help opened every case, took out each broken comb and its section-box, and with common white cord fastened the comb in its former place by tying the cord both ways around the section-box. This kept each comb fairly upright, though in a leaking condition.

We went through all the cases, some of them with fully half the contents broken down. Where over one-fourth were thus broken, we removed the whole of them, and with a wet cloth wiped the inside of the case, and put new paper in the bottom.

We repackt the whole lot, putting the string-tied broken combs all in cases by themselves, and the uninjured sections of honey in separate cases. When we were through we had about 550 pounds of the broken-down honey. This latter was sold to a honey commission-man here for 7 cents per pound, and probably found its way finally into the hands of what are known as "cutters"—firms who cut up comb honey and put it into tumblers with glucose surrounding the comb.

We want to say right here and now, that we *don't* want another such a sweet, stuck-up job on our hands. We believe the one just described would have been wholly unnecessary had the shipper packt the cases of honey in large crates with handles, etc., as has been so frequently advised in these columns.

Of course there was quite a loss on the broken honey, besides the unpleasant work of repacking, tying in the loose, leaking combs, etc. But it was a good lesson all around, and now we hope those who read this may profit by our experience.

◆

That St. Joseph Convention Report (our own) is in a good state of preservation. We had hoped to begin the remaining part of it before now, but felt that it would be better to first publish the reports of more recent meetings, and then follow with the unpublisht portion of the St. Joseph proceedings. As it has been delayed now over two years, a month or two longer will not injure its historical value very much, anyway. And, then, it gives ex-Secretary Benton just so much longer time to decide whether he will fulfill the positive promise he made at the Toronto meeting in September, 1895, when, in reply to a question as to whether he would forward the part of the Report he was withholding, said, "*I will.*" But up to this time it has failed to come.

However, we have it all right in the carbon copy from the shorthand reporter of the St. Joseph convention, Mr. Louis R. Lighton, which we obtained from him when on our way home from the Lincoln convention in October last. It was fortunate that Mr. Lighton had the extra copy, for the one held in Washington may crumble to dust before Mr. Benton decides to keep his word with the North American Bee-Keepers' Association.

◆

The Amalgamation Question we presume will be settled this month. The perhaps 250 members of the National Bee-Keepers' Union have the deciding vote, as the North American Bee-Keepers' Association gave its favorable decision last October, at the Lincoln convention. Those who now will vote have it in their power to help form the strongest "Union" yet known among bee-keepers. Will the majority improve their golden opportunity? We believe they will; and when the ballots are opened and counted, Feb. 1, we fully expect to see the New Constitution adopted, and also the following list of officers almost unanimously elected:

For Board of Directors—Hon. R. L. Taylor, of Michigan; G. M. Doolittle, of New York; Prof. A. J. Cook, of California; A. I. Root, of Ohio; Hon. Eugene Secor, of Iowa; and C. P. Dadant, of Illinois.

For General Manager and Treasurer—Dr. C. C. Miller, of Illinois.

It would be a difficult thing to find seven better men among all the bee-keepers in this country. All of them are well known to the bee-fraternity, having been prominently before the apiarian world for a score or more of years. And if *they* couldn't make their part of the New Union a splendid success, we are free to say that we don't know who could.

◆

A New Spelling Reform—or reform in spelling—is being undertaken among quite a number of publishers, editors, authors, and prominent writers of the day. Messrs. Funk & Wagnalls, of New York—the publishers of the great Standard Dictionary—began a new effort, about a year ago, to reform our miserable spelling, by securing the promises of 300 publishers, editors, authors, etc., to join them in an attempt to undertake the work by piecemeal, as it were, each one agreeing to adopt certain changes in spelling when a full 300 had consented thereto.

Well, the editor of the American Bee Journal was among the 300 leaders in the new reform, and with this number we begin the use of the first rule to which all have agreed, viz.: To change "ed" to "t" in words ending with "ed" and pronounced "t." For instance: Worked—workt; helped—helpt; astonished—astonisht; watched—watcht, etc. Of course there are some exceptions to the rule, the word "produced" being one of them; to apply the rule to that word, you would have "product."

We think that none of our readers will be inconvenienced at all by this small change, after the foregoing explanation, and it will be a beginning of what we hope will result in a thorough simplification of what in many cases might be termed the abominable English spelling.

For a time, we presume, through force of habit, we will frequently fail to spell the new way, but we will try to keep in mind the one rule that we have agreed to adopt. And we request that all our contributors and correspondents kindly assist us by also endeavoring to "fall into line" by using the same rule in all their writing. As time goes on, likely other changes will gradually be agreed upon, and thus finally we shall have a sensible spelling—one using perhaps no more letters than there are sounds in a word. We hope it may be so.

Honey Recipes.—In Gleanings for Dec. 15, we find two recipes in which honey is used. They were furnisht by Charles McCulloch & Co., of New York, and are as follows:

> HONEY CARAMELS.—These are made by cooking to "soft crack" two pounds of coffee A sugar, two pounds of clear extracted honey, and two pounds of glucose.
>
> HONEY GINGERCAKE.—Rub three-quarters of a pound of butter into a pound of sifted flour; add a teacupful of brown sugar, two tablespoonfuls each of ground ginger and caraway seed. Beat five eggs, and stir in the mixture, alternately, with a pint of extracted honey. Beat all together until very light. Turn into a shallow square pan, and set in a moderate oven to bake for one hour. When done, let cool and cut into squares.

Editor Root has this paragraph immediately after the two recipes:

> "Bee-keepers hate the very suggestion of glucose, so I think they will be inclined to put in more honey and leave out glucose entirely in the first-mentioned recipe. If glucose is an ingredient essential to the good quality of the caramels, it will be the first instance that I have ever known where that article was of any use."

We are always glad to publish tested recipes showing how honey is used. We cannot have too many of them, for we believe that if bee-keepers knew more ways in which to use honey, they would be more inclined to develop the *home* market in their own families as well as among their neighbors. In so doing at least some of them would be the gainers, as they would have less honey to *give* to the dishonest commission firms that annually make their appearance.

Apis Dorsata Once More.—The following item is an editorial found in the December American Bee-Keeper:

> "As revealed by an inquiry in the American Bee Journal, the importation of Apis dorsata by the United States Government is favored by such distinguisht and reliable apiarists as Prof. A. J. Cook. Mrs. L. Harrison, E. France, J. M. Hambaugh, W. G. Larrabee, G. M. Doolittle, and G. W. Demaree."

The above item would be better if it gave the *whole* truth. Mrs. Harrison's answer is:

> "Mrs. L. Harrison—I do; and put them in the Everglades of Florida; they are 160 miles long and 60 miles broad. The water is from one to six feet deep, dotted with little islands. The Seminole Indian and Apis dorsata would go well together, for he likes honey, when it is to be had for the taking; also fruit, but in his wild state he has never been known to plant a tree, or keep bees in a hive."

No thought, it will be seen, of domesticating them or keeping them in hives, but give them to the Seminole Indians who have never been known to keep bees in hives. Isn't Mrs. Harrison poking fun?

Mr. Larrabee's answer is: "Yes, if they would not turn out like the English sparrow."

Mr. Demaree, while wishing it might be done, fears it might not succeed in Government hands, and raises the question why it might not be done by "a stock company."

In addition to these modifications and reservations of the seven named, in all fairness our contemporary should have added that on the same page appeared a list of just *twice as many* names, equally "distinguisht and reliable," who *opposed* the scheme.

Now is the Time to work for new subscribers. Why not take advantage of the offer made on page 13?

The Weekly Budget.

DR. A. B. MASON—Secretary of the United States Bee-Keepers' Union—is already working on the program for the Buffalo meeting. He believes in beginning on time. That meeting must be made the best ever held in this country.

REV. F. J. REICHERT, of Kansas, when sending his dollar for 1897, wrote: "Here is my subscription for 1897, together with my high appreciation of the American Bee Journal, and best wishes for its continued prosperity and helpfulness.

MR. JAS. A. STONE is making arrangements for the Springfield meeting of the Illinois State Bee-Keepers' Association to be held Feb. 24 and 25—next month. A notice on another page gives further information. Mr. Stone is the wide-awake Secretary, and expects a large attendance of Illinois bee-keepers.

MR. F. A. GEMMILL, of Ontario, Canada, in a letter dated Dec. 22, wrote us as follows:

"We had a good crop of honey the past season, and look for a still better one next year, as indications point that way. I hope that California, and likewise all the United States, may also have good cause for rejoicing with us."

We have an article from Mr. Gemmill, giving his impressions of California. He was there about a year ago, and seems to have been somewhat entranced with the climate and some other good things that "Golden Gated" State possesses.

DR. PEIRO is "on deck" again with his health hints, as will be seen on another page of this issue. Any time our readers wish to ask him a question, just write him, not forgetting to enclose stamp, at least. He's usually very accommodating, and also good-natured, but don't expect him to furnish a whole drugstore, with a year's treatment and advice, all for one stamp. We mention this so that no one will expect too much from the Doctor. But you have our full permission to write him all you like. He's broad-shouldered and healthy, and can stand a good deal of work besides what he does at his meals, three times a day!

PROF. LAWRENCE BRUNER, of the Nebraska University at Lincoln, is "pictured" in Gleanings for Dec. 15. He is a valuable man, and has done much original scientific investigation. Though only about 40 years old, he has written a number of useful works bearing on his special lines, a few of them being: Birds of Nebraska; Tree-Claim Insects; Insec Enemies of Indian Corn; Insect Enemies of the Grapevine Introduction to the Study of Entomology. Prof. B. is a regular "worker-B."—of whom Editor Root aptly writes: "Prof. Bruner is one of the rising young men of the country, and one who is both able and willing to give bee-keepers material assis tance in his department." All were much pleased with Mr Bruner and his untiring efforts in behalf of the North Ameri can convention held at Lincoln last October.

MR. A. I. ROOT was in Tempe, Ariz., Dec. 23, and kindly wrote us a postal card from there. Upon it he said:

"DEAR BRO. YORK:—We hear many kind words for the American Bee Journal among the bee-keepers here, and I have been scolded a good many times because I did not bring you along. Mr. ———, of Phoenix, says he is going to get you a big club of subscribers for what you have done to put down swindling commission-men. There is an awful lot of bee-keepers in this valley. They shipt 30 carloads of honey last year."

It is too bad that Mr. Root should be "scolded" for what he couldn't help, or didn't think of before he started on his trip. Next time, perhaps, he will *invite* us to accompany him, offering, of course, to pay all our expenses! In that case, he won't have to urge us very much.

We are glad to know that what we have tried to do along the line of choking off commission frauds is being appreciated. That's what we are here for—or at least that is a part of our work in the interest of bee-keepers.

MR. JOSEPH STEPHENSON, of Tennessee, wrote thus, Dec. 22: "Please continue to send me the "Old Reliable" for 1897, as I could not keep bees with profit and not have your paper."

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Moist Ground in the Bee-Cellar.

I would like to learn if it would be injurious to bees to remove them from the cellar and make a warm pen or other place for them above ground. We had a three-days' rain Thanksgiving week, and water got into the cellar, making the ground moist, though not very wet. Which would be best to do, leave them in the cellar and risk the dampness, or take them out and leave them above ground the rest of the winter?

S. J. T.

ANSWER.—Probably you'll do as well to leave the bees in the cellar. A little moisture will not hurt them, especially if the cellar is not too cold. Indeed, success has been good in cellars with water running through them all winter. It isn't the moisture that hurts so much as the bad air, only bees can't stand as much cold in a wet as in a dry cellar. See to it that the air of the cellar does not get foul, by opening up windows or doors at night, and if the temperature gets below about 45°, plan some way to warm it.

Alsike and Sweet Clover.

Where does Alsike clover grow? About how tall is it? When should it be sown? We have some wild clover here that grows from two to five feet high. Some people call that sweet clover, but I don't think it is. It grows very much along the roadside, in ditches, etc.

W. W., Union Hill, Ill.

ANSWER.—Both sweet and Alsike clover grow all over the State of Illinois, as well as other States. Alsike is easily distinguish by its blossoms—beautiful pink and white, in size and color between white and red clover, and grows about as high as red clover. On some ground sweet clover grows about as high as you mention, two to five feet high; on other ground higher. The blossoms are not in heads like most clovers, but more the shape of a stem of currant blossoms, sweet clover blossoms being small and white. When wilted, the leaves have a peculiar and strong fragrance. It keeps in bloom among the last things in the fall, the blossoms often appearing along the almost-dead stalk. It would be nothing strange if the plant in question should turn out to be sweet clover.

Feeding for Pollen to Prevent Bees Becoming a Nuisance.

Feeding for pollen will be a necessity with me in the spring. Not that the bees need it, but peace in the neighborhood will make it a necessity. Last spring cattle-feeders came with a complaint that my bees were so thick in the feed-troughs that the cattle could not eat. At first I thought their statements were exaggerated; but on examination, I found it too true. Bees were just rolling over each other in the feed-troughs, and about the mill men grinding had been stung. In fact, the bees were a nuisance. To stop the trouble I thought to feed something they liked better, and near the apiary. First rye-flour was given, then Graham flour, and then corn-meal. To my surprise, the rye-flour was not toucht, and the Graham flour but little. The meal they workt at but it was ground with a steel mill and only the fine part was taken. It was evident that corn-meal was preferred. Has any one tried sweet-corn ground, or corn-starch? If they can be fed something they like better then corn and cobs ground, it will be very desirable.

L. M. B., Glen Ellen, Iowa.

ANSWER.—I think no case of this kind has ever been publisht before, but it might easily occur in any place where there were some warm days in spring with no natural pollen to be had and meal of any kind exposed. I'm not certain whether you can head off the bees, but I think you can. One element in the problem is to try to get the bees at work at home *before* they have had a chance to work elsewhere. If you give them exactly the same feed that they get abroad, you may still have the advantage by getting them in the habit of working on something nearer.

I never heard of any one feeding bees meal from sweet-corn, but it is well worth trying. You will probably find that they will prefer corn and oats ground together, to corn and cobs. They will take only the fine parts, and the coarser parts can be fed to horses or cattle afterward. You will, I think, find that they will prefer unbolted rye-meal to rye-flour, partly because the bran gives them a better foothold, and partly because perhaps they prefer the material that is next to the bran. But nothing seems to suit them better than ground corn and oats, so far as I have tried, and I've tried a good many things.

Mignonette—Planting for Honey.

I am very much interested in the question of honey-producing plants. In the summer of 1895 I had a large quantity of mignonette growing in a flower-garden. It began blooming about June, and continued till Dec. 1. I never saw bees working in such numbers on any other plant. I had all varieties of mignonette, but the bees did not care as much for "Parson's White" as the other kinds. I was thinking of sowing a piece of ground for them next spring, and would like your opinion about it. Also, what is the quality and quantity of honey produced therefrom.

On account of cold, wet weather it has not been a very good honey season here this year. S. S. A., Essex, Ont.

ANSWER.—It is now very generally agreed that it doesn't pay to raise any plants for the sake of the honey alone. Unless you can get enough for the seed to pay for land and labor, you may do well to put in some other crop. Just how much honey can be obtained from an acre of mignonette would be a a very difficult thing to determine, and I couldn't even make a respectable guess at it. Probably there's no one now living who knows with any sort of exactness how much honey can be obtained from any honey-plant in existence.

How and When to Feed in Spring.

I have about 250 pounds of good thick honey, and I would like to know how you would feed it without much expense in time in the spring to do most good. The nights are quite cold here until away along in May, and often quite cold even in June. Therefore it has been a question with me just when and how to give it. COLORADO.

ANSWER.—If there are no neighbor's bees near by, it might be a good plan to feed outdoors. If it is necessary to feed in the hive, some plan should be used that would waste as little heat as possible, and not knowing what your feeders are I can't suggest just what should be done. If the feeding is done outdoors, it may be safely left to the bees and the weather as to when they carry it in. Wherever fed, it may be well to dilute with water, half and half. It may also be given quite hot. The question arises as to getting the benefit of what is called stimulative feeding. From what you say as to cold days and nights, I doubt whether I would do much else than to let the bees carry in the honey just as fast as they would, whenever there are days warm enough for them to work. If plenty of honey is in the hives I generally find that my bees have all the brood in the spring that they can cover, and I hardly see what good it would do to have more, even if by feeding you could increase the queen's laying.

Bee-Sting Poison—Swarming-Time Management.

1. In working with my bees I have noticed a peculiar smell when they were mad, or in other words, on the warpath? What is it?

2. To place an empty hive under a colony with a clipt queen at swarming-time, would the bees and queen go into the new hive? W. P.

ANSWERS.—1. It is the poison thrown off from their stings, and when you smell that odor, look out.

2. Your plan, if I understand you, is when a swarm issues, to lift the old hive from its stand, put the empty one in its place, and then set the old hive on top, depending on the swarm to enter when they come back after finding there is no

queen with them. You can count on the swarm returning if the queen is clipt, unless they enter some other hive where a swarm entered only a little while before. If there is no bottom to the upper hive, and free communication between the two, of course the swarm will climb right up into the old hive, and then it will swarm right out again the next day. But if there is no communication between the two hives, and the queen enters the lower one, it will be more or less a success. Part of the bees would probably find their way up into the old hive. All this is on the supposition that some one is by and makes the change in the position of the hives after the issuing of the swarm. That being the case, the wise thing (and indeed it is a common thing) is to remove the old colony to a new stand, or at least set it a little to one side, although after the swarm is in the new hive it will work all right to set the old hive on top.

Possibly your idea is to put the empty hive under the old one some time before the swarm is expected to issue, so that the swarm can enter the new hive without the bee-keeper being on hand. Don't try that. It would be a dead failure. For the bees would become accustomed to entering the hive above, and then when the swarm returned they would steer straight for the upper hive. Even if the queen should enter the hive below, there wouldn't be euough bees go with her

Cost of Comb Honey Production—Controlling Swarming—Climate for Catarrh.

1. What is the cost of producing a pound of comb honey?
2. What is meant by the Heddon method of controlling swarming.
3. Where can I go to keep bees and at the same time be in a good climate for one with catarrh?

J. E., Wadena, Minn.

ANSWERS.—1. I don't know. I do know, however, that it varies very greatly. If a man has an apiary of 100 colonies or more and gets a very small amount of honey, it may easily cost him a dollar a pound. Another man getting as much from one colony as the first one did from a hundred will of course find the cost very much less. At one time there was quite a discussion as to the average cost of producing a pound of comb honey, but there was much disagreement among the witnesses, and the matter was about as unsettled at the close as at the beginning.

2. The prevention of after-swarms is thus given by Mr. Heddon: "Let us suppose that colony 8 swarms June 15. With a non-erasive crayon we mark upon the hive, 'O, June 15,' and on the hive in which we put the swarm, 'S, June 15.' Thus we distinguish the old colony from the swarm at a glance, as we make these marks in large characters.

"When we hive the swarm (always on full sheets of wired foundation) we place it on the old stand, moving the old colony a few inches to the north (our hives front east), with its entrance turned northward, away from its swarm about 45°. As soon as the new colony is well at work, having their location well markt, (say two days), we turn the old colony back parallel with the new one. Now both hives face east, sitting close beside each other. While each colony now recognizes its own hive, they are, as regards all other colonies, on one and the same stand.

"The dates on the back ends of the hives indicate that second swarming may be lookt for about June 23. About two or three days before that date, and when the bees are well at work in the field, we remove the old hive to another location in the apiary. This depopulates the old colony, giving the force to the new, leaving too few bees in the old one for the young 'Misses' to divide; and as they at once recognize this fact, they fight it out on the line of 'the survival of the fittest.'

"Remember, that you are to remove the old hive to its final location, when the workers are mostly in the field, and move it carefully, so that very few old bees carried away with it will mark the new location."

3. I don't know. Perhaps Colorado.

Late Keeping of Drones.

1. I have a colony of bees I transferred on Sept. 1. On Sunday, Dec. 13, while looking over the hives on the summer stands, I noticed quite a number of drone-bees flying in and out of the hive. Why these drone-bees should be there at this time of the year is what puzzles me. Unless the colony has become queenless, and a laying worker laid the drone-eggs, I cannot explain it.

2. What is the best course to pursue to save the colony, as it is a good strong one with plenty of stores? Would it be the best plan to let it alone until March, or early spring, and then buy a tested queen, if possible, and introduce her and save the colony? A. F. M., Rhode Island.

ANSWERS.—1. Laying workers may be present, in which case the drones, or at least part of them, are likely to be quite small. A drone-laying queen may be to blame—small drones in this case also. It is possible, however, that a good queen may be in the hive. Sometimes a strong colony retains its drones quite late, even into winter.

2. In any case there is nothing to be done in the way of introducing a queen before spring, and possibly it may not be the best thing even then. If laying workers are on hand, the bees will be so old that it will not be worth while to waste a queen on them, and you may better unite them with another colony quite early in the spring. If you are inexperienced with bees, you're not likely to unite, for a beginner always counts much on the number of colonies he has, and when he has more experience he'll value number of bees more than number of colonies.

Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Source of Greatest Amount of Honey—Honey Liked Best.

Query 40.—1. From what source is the greatest amount of honey obtained in your locality?

2. What honey is generally liked best in your locality, clover, basswood, or what?—NEW YORK.

G. M. Doolittle (N. Y.)—1 and 2. Basswood.

Dr. C. C. Miller (Ill.)—1 and 2. White clover.

R. L. Taylor (Mich.)—1 and 2. White clover.

J. P. H. Brown (Ga.)—1 and 2. Poplar and asters.

Eugene Secor (Iowa)—1. Linden. 2. Linden and white clover.

E. France (Wis.)—1. White clover and basswood. 2. White clover.

Emerson T. Abbott (Mo.)—1. Basswood and clover. 2. Clover.

Jas. A. Stone (Ill.)—1. White clover; and in the fall, heart's-ease. 2. White clover.

J. M. Hambaugh (Calif.)—1. From the mountain sages, principally black sage. 2. Sage honey.

Mrs. L. Harrison (Ill.)—1. This year, sweet clover. Twenty years ago, white clover. 2. Clover.

W. G. Larrabee (Vt.) — 1. White clover. 2. There is not much choice between clover and basswood.

Mrs. J. N. Heater (Nebr.)—1 and 2. We get the bulk of our crop, which is also liked the best, from heart's-ease.

Chas. Dadant & Son (Ill.)—1. Clover and fall blossoms. 2. Clover for white honey; Spanish-needle for yellow honey.

H. D. Cutting (Mich.)—1. White and Alsike clovers. Our basswoods are nearly all gone. 2. Clover and basswood is preferred.

Prof. A. J. Cook (Calif.)—1. White sage and wild buckwheat. We have no clover or basswood. 2. Honey from white and ball sage.

Rev. M. Mahin (Ind.)—1. White clover. 2. White clover is, I think, the favorite. Of late years we have had very little surplus from any other source.

A. F. Brown (Fla.)—1. Black mangrove. 2. Very little choice among orange, palmetto, mangrove or goldenrod. My crops go to Northern markets.

P. H. Elwood (N. Y.)—1. Basswood. 2. Some say clover, and others say basswood, but the majority of those expressing their opinions do not know clover from basswood.

C. H. Dibbern (Ill.)—1 and 2. Sometimes one source, and sometimes another. White clover is our very best, linden next, and heart's-ease third. Buckwheat and miscellaneous weeds last.

Dr. A. B. Mason (Ohio)—1. Some years from sweet clover, and some years from fruit bloom, white clover, sweet clover, and fall flowers. 2. Basswood, or a mixture of light-colored honeys flavored with basswood.

J. E. Pond (Mass.)—1. In the spring the fruit-blossoms; in late spring and early summer, swamp vegetation. In mid-summer, clover, etc.; in the fall, golden-rod and late swamp vegetation. 2. Clover is considered the best. We have no basswood.

J. A. Green (Ill.)—1. Heart's-ease has yielded the largest crop. After that, white clover, sweet clover and basswood, in the order named. 2. White clover, sweet clover, heart's-ease and basswood are generally liked, in the order named.

G. W. Demaree (Ky.)—1. This may be hard to answer, considering the amount of honey consumed by the bees in the spring to breed up to working strength, and in fall to winter on. Our surplus crop comes from white clover. 2. White clover honey.

General Items.

Not an Entire Failure !

My crop this year was 150 pounds of extracted honey per colony, mostly from bergamot and buckwheat. The prospect for another season is better than it was a year ago. E. M. Hayes.
Columbia Co., Wis., Dec. 25.

Prospects Good for Next Season.

We had a very poor season for bees here, I had nearly 50 colonies, spring count, and did not get one pound of honey. I had to feed all except two, to keep them from starving. The prospects are good here for a honey-crop next season; plenty of white clover. S. N. Replogle.
Wayne Co., Ind.

Report for 1896.

My report for 1896 is as follows: From 6 colonies, spring count, 414 finisht sections of honey; from two prime swarms, purchast the last of June, 115 sections. The average selling price was 12½ cents per pound. I had 6 prime swarms and 7 artificial ones. I put 21 colonies into the cellar Nov. 9, most of them being in good condition. George Stout.
Hennepin Co., Minn.

A New Hampshire Report.

I had 25 colonies last spring, which increast to 45, after hiving back and uniting all I could. I obtained 736 pounds of honey, being an average of 29 pounds, spring count. Most of this was in one-pound sections, and gathered from spring flowers. In October I reduced the 45 colonies to 25 by uniting, saving the best queens. They are now packt in outer cases, on the summer stands. J. P. Smith.
Sullivan Co., N. H., Dec. 24.

Strongly in Favor of Amalgamation.

Every bee-keeper at our State convention in Minneapolis was anxious to have the National Bee-Keepers' Union and the North American Bee-Keepers' Association unite as soon as possible, and stop the honey swindlers, if it can be done. Nearly all present who were not members of the New Union jointly paid their dollars, and if more is needed to convict the dishonest commission men and adulterators, all were willing to pay more.

I was against the amalgamation at first, but since the New Constitution came out, I am with it, because the New Union has all—yes, *more*, than it ever had heretofore; therefore I can't see that any member of the old Union can find any fault. Every bee-keeper should see that something must be done, if they don't want to be robbed of their work and product by the unscrupulous commission men and adulterators; and as the occupation of bee-keepers is declared a legitimate business by the courts, it will probably stop further trouble in that line, and the money can be used for better purposes than to lie idle. We did not pay it in for that. C. Theilmann.
Wabasha Co., Minn.

The Shade Question.

I am very well satisfied with the American Bee Journal. The question before the Illinois State Bee-Keepers' convention in regard to shade is one of great importance, and I perfectly agree with Mr. Baldridge in regard to it. The great wonder to me is that the question never came up before.
San Mateo Co., Calif. M. P. Smith.

Good Season Expected.

We have had nice rains so far, and the bees are doing well. They are now working on eucalyptus bloom. The weather is just glorious, and has been so far. December is our frosty month, and there is no sign of it yet. In fact, every indication is for a good season all around.
Dr. E. Gallup.
Orange Co., Calif., Dec. 18.

Bee-Keepers Had a Hard Time.

I am well pleased with the American Bee Journal. It is very interesting and up with the times. The bee-keepers of Arkansas have had a hard time with their bees during the last season. We have had to feed for winter, and the winter so far has been very open, and I fear that many will lose a great per cent. of their bees.
E. A. Seeley.
Sebastian Co., Ark., Dec. 22.

Good Prospect for Next Season.

My report for 1896 is 210 nicely-filled sections of honey, and a lot that were not more than half full, from 6 colonies, spring count; 1 increast to 15. My best colony gave me 72 pounds of light honey, but did not swarm. There was not much of a flow after clover in this section, and bees had to be fed some; I fed 60 pounds of sugar. There is a good prospect for a clover honey-flow next season.

I could not get along without the American Bee Journal. Herbert C. Towle.
Rockingham Co., N. H.

Not Discouraged.

I commenced with 5 colonies a year ago last May, increast to 9 by division—we had no natural swarms in this part of the country, and as it was no honey year, I had to feed in the fall. I wintered them in the cellar, and they came out in good condition, all but one, which was very weak, but by giving it two frames of brood it came through all right. Last season was somewhat better. I increast to 17 colonies, but lost one in the fall by being robbed, so I now have 16 in the cellar; I think they are in good condition. From one colony I took about 50 pounds of comb honey; from the rest less. Although it was a bad time to start in the bee-business, I am not yet discouraged. H. Steinfort.
Jefferson Co., Wis.

Caught by Wheadon & Co.

Editor York:—You were badly mistaken when you said in the American Bee Journal that you believed none of its readers were taken in by the Wheadon & Co. swindle. I know one whose name has adorned your subscription list for the last 15 years, and still got trapt to the tune of 2,070 pounds of honey. Still, I appreciate your untiring efforts in putting down fraudulent commission firms, even if the warning appeared too late to save me.

I have a few suggestions to make, that I think would be beneficial to honey-pro-

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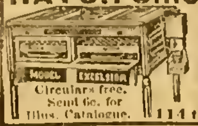

44A26t *Mention the American Bee Journal.*

ducers, if they could be put into effect. That is, compel every commission merchant to have, say 10 or 20 thousand dollar bonds, and make them keep an account of everything sold, to whom, and at what price; then if a person felt dissatisfied, he could find out if his goods sold for the returns made. If a bond is necessary for a commission firm doing business on the Board of Trade, it is equally necessary for those doing business outside. Any other man holding a public trust is required now-a-days to give bonds—commission men are an exception. They are no more dishonest than other men; give any class of men such a chance and they will be rogues; remove the chance, and they will be honest.

A SOUTHERN MINN. BEE-KEEPER.

Poor Season for Bees.

I have been keeping bees for the last 40 years, but have never seen such a poor season for honey as the past was. I had about 45 colonies in the spring, that seemed to be in pretty good condition, but did not get five pounds of honey. But I am going on the theory of "try, try again." My bees at present seem to be in tolerably good condition. I am waiting for the weather to get cold before I put them into the cellar. I have a good, dry cellar, well ventilated, where it never freezes. My experience is the experience of all the bee-keepers in this vicinity. N. SANDERS.

Henry Co., Ind., Dec. 20.

Both at Gold-Standard Prices.

Like the subscriber commented on in the editorial on page 808, I have to take gold-standard prices for my produce, but I am very thankful that I can pay for the American Bee Journal on the same standard. I intend to keep bees as long as I can make them pay, and when they become unprofitable enough so that they will not pay the small sum of $1.00 for the Bee Journal, then I will drop it, and the bees also; but I want the Bee Journal as long as I have the bees. Success to the American Bee Journal! Long may it live, and its pages never grow less! S. LAMONT.

Wabasha Co., Minn.

Drones Reared in Worker-Cells.

No, sir; don't you believe it, that drones are *not* hatcht in worker-cells, for I had two colonies do that very thing the past season. I have followed the plan (or no plan) of letting the bees do their own superseding of queens, but for some unaccountable reason the bees let the queens go on laying eggs, and, alas, unfertile eggs, and the bees could not rear a queen—at least they did not. One colony, when given eggs from another colony, reared a fine queen, but the other one—no, sir, they would destroy the eggs every time. So I sent for a queen, and, to my surprise, I got her accepted, and she did good work. Heretofore I have had no such experience.

The past season was fairly good for honey, though a few apiarists report "Not a bit of honey." The prospects are good for another year. At least white clover, on account of so much rain, got a good start. GEO. SPITLER.

Clearfield Co., Pa.

Honey from Sweet Clover, Etc.

Will you please ask for the opinion of those who have experience in growing sweet clover, how many pounds of honey per acre it will yield? or how many colonies it would require to gather the honey from 10 acres of sweet clover?

Mr. Stolley, of Nebraska, thinks sweet clover yields 200 to 500 pounds of honey per acre, according to the season.

I have 84 colonies on the summer stands, and 2 in the cellar. Bees seemed awfully light in the fall. I fed two barrels of sugar and about 500 pounds of honey. I think

Finest Alfalfa Honey!
IT SELLS ON TASTING.
The Honey that Suits All Who Buy It.

We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 8 cents per pound; 2 cans in one case, 7¼ cents; 4 cans (2 cases) or more, 7 cents. The Cash MUST accompany each order. **Fine Basswood** Flavor Honey at the same price.

☞ A sample of the honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity, and what we ship will be equal to sample.

Now it seems to us here is a splendid chance for any bee-keeper to supply his home demand after his own crop is all sold. Or, why not begin now to create a local honey-trade? Order one 60-pound can first, and start out among your neighbors and friends, and see what you can do. You ought to get at least 15 cents per pound in 5-pound lots, or 50 cents for 3 pounds. Some may be able to do even better than that, though we think that enough ought to be sold at these prices to make a fairly paying business out of it. Give it a good trial. Push it. It may grow into a nice winter's work for you.

GEORGE W. YORK & CO., 118 Michigan Street, CHICAGO, ILL.

✣ MONEY SAVED IS MONEY GAINED. ✣
THE ROYAL UNION
Life Insurance Company
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The Iowa Policy
Is one that definitely promises to keep an accurate account with you; credit your premiums and interest, charge the actual expense and mortuary cost, and hold the remaining funds subject to your order.
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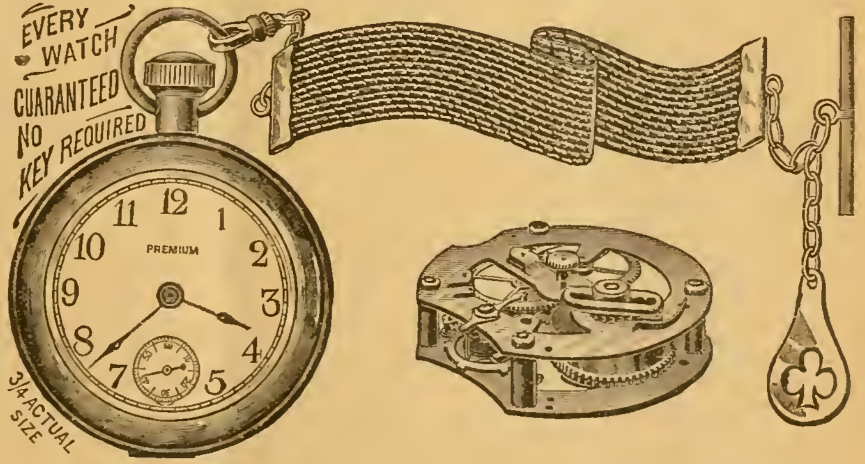

The movement of this Watch is regular American lever, lantern pinion, quick train, 240 beats per minute, three-quarter plate, short wind; runs 30 hours to one winding; dust cap over movement; every movement fully timed; regulated and guaranteed for one year, the same as a Waltham or Elgin; nickel finish, heavy bevel crystal, and back pinion wind and set.

OUR OFFERS:—We will mail the above Watch for $1.25; or club it with the Bee Journal for a year—both together for $2.10; or we will send it free as a premium for getting **Three New yearly Subscribers** to the Bee Journal at $1.00 each. The Watch is mailed from New York City, so please allow a few days before expecting your order to be filled.

GEORGE W. YORK & CO., 118 Michigan St., Chicago, Ill.

there will be a good many bees lost here this winter, but the prospect seems good for a crop next year, if we have the bees to gather it, as clover was looking fine before it was covered with the snow we now have.

C. A. HUFF.

Lenawee Co., Mich., Dec. 23.

[We think that all estimates as to how much honey an acre of blossoms of any plant will yield must be wholly guess-work. No one really knows. Still, if any one has anything to offer on the subject, we are ready to listen to it.—EDITOR.]

JUST THE MACHINE

Every Bee-Keeper Ought to Have.

The best machine on earth for Fastening in Starters and Pressing the Sections together, is the

McCartney Fountation Fast'ner and Section Press Combined.

It presses the Section together, moves the Foundation in, cuts it off the desired length and presses it on—all at one operation. With one of these machines one man can do more work in a first-class manner than four men with any other machine now made. If you want one next season, order at once.

A Testimonial.

ROCKFORD, Ills.

I have used the "McCartney Combined Foundation Fastener and Section Prees" to some extent, and consider it one of greatest accessions to bee-keeping of anything since the invention of the movable frame. No bee-keeper who runs for comb honey can afford to be without it.

S. H. HERRICK.

O, brother bee-men, have you seen
The latest in the starter machine?
It slides it in, then cuts it off
And sticks it on—then makes you laugh
To think that you were not the one
To get it up and stop the bother
Of cutting it off and using another.
I don't claim to be smart; there lots that are smarter
But, still, I know how to cut off a starter;
And if you don't believe me, just buy a machine,
That will fasten your starters both neat and clean.
And if you prefer to stand on your feet,
And rush thro' your work in an instant, complete—
Just buy what they call "The McCartney Machine."
It will finish your sections both rapid and clean.
Then all you will lack is the bees and the honey,
To fill up the sections and roll in the money.

For further particulars, address—

G. R. McCARTNEY,
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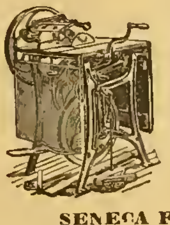

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30 years' experience. If your case is sufficiently serious to require expert medical treatment, address

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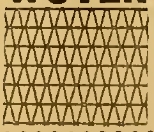

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A GOLD DOLLAR

is about the actual worth of our new book on Incubation and Poultry. Contains a full and complete description of the Reliable Incubator & the Brooder of same name, together with cuts and instructions for build'g poultry houses and much of interest and great value to the poultryman. Sent on rec'pt of 10c. RELIABLE INCUBATOR & BROODER CO.-QUINCY-ILLS

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HONEY and BEESWAX

MARKET QUOTATIONS.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

Chicago, Ill., Dec. 31.—Fancy white, 12@13c.; No. 1, 11@12c.; fancy amber, 10c.; No. 1, 7@9c.; fancy dark, 8c.; No. 1, 7@8c. Extracted, white, 5@7c.; amber, 5@6c.; dark, 4½@5c. Beeswax, 26@27c.

There has been a little more trade in honey this month, but the sales are below average for this season of the year.

Philadelphia, Pa., Dec. 31.—Fancy white comb, 13-14c.; No. 1 white, 11-12c.; fancy amber, 10-11c.; dark, 8-9c. Extracted, white, 6-8c.; amber, 4-5c.; dark, 3-4c. Beeswax, 26c.

Comb honey arriving freely and market overstocked at present.

Albany, N. Y., Dec. 31.—Fancy white, 12-13c.; No. 1, 11-12c.; fancy amber, 9-10c.; No. 1 dark, 8-9c. Extracted, white, 6-7c.; dark, 4-5c.

The receipts of both comb and extracted honey are very large, and prices are somewhat lower. We have an ample stock of all styles except paper cartons weighing less than a pound.

Indianapolis, Ind., Dec. 31.—Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Kansas City, Mo., Dec. 31.—Fancy white comb, 15c.; No. 1 white, 13@14c.; fancy amber, 12-13c.; No. 1 amber, 11-12c.; fancy dark, 10-11c.; No. 1, 8-10c. Extracted, white, 6-6½c.; amber, 5-5½c.; dark, 4-4½c. Beeswax, 22-25c.

Boston, Mass., Dec. 31.—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Milwaukee, Wis., Dec. 31.—Fancy white, 14-15c.; No. 1, 12-13c.; No. 1 amber, 8-10c. Extracted, white, 6-7c.; amber, 5-6c.; dark, 4-5c. Beeswax, 22-24c.

New crop of honey begins to come forward. The demand is very poor and quotations almost nominal. Weather is very warm and the consumption of honey is very small. Plenty of fruit, and hence the appetite is satisfied with same in preference. Later on we expect an improved demand for honey of all kinds.

Cleveland, Ohio, Dec. 31.—Fancy white, 14½@15c.; No. 1 white, 12½@13c. Extracted, white, 6@7c.; amber, 4½@5½c. Beeswax, 22@25c.

There is not very much honey in our market. Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

New York, N. Y., Dec. 31.—Fancy white, 11@12c.; fair white, 9@10c.; buckwheat, 7@8c. Extracted, white clover and basswood, 5@5½c.; California, 6c.; Southern, 50c. per gallon. Beeswax in fair demand at 26@27c.

The market is quiet and inactive. Demand light and plenty of stock on the market.

Cincinnati, Ohio, Dec. 31.—Comb honey, best white, 10@14c. Extracted, 4@6c. Demand is slow; supply is fair.

Beeswax is in fair demand at 22@25c. for good to choice yellow.

Buffalo, N. Y., Dec. 31.—Fancy and No. 1 white comb, sells well at 10 and 11c., but seldom 12c.; other grades, 8-6c., and require much urging. Extracted 4-5c.

St. Louis, Mo., Dec. 30.—Fancy white, 14c.; No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@10½c.; fancy dark, 9@9½c.; No. 1 dark, 7@8c. Extracted, white, in cans, 6@7c.; in barrels, 5@5½c.; amber, 4½@4¾c.; dark, 3½@4c. Beeswax, 26½@27c.

Baker stock of extracted honey, 4@5c; stock very scarce. Fair receipts of comb. Beeswax in good demand.

Detroit, Mich.; Dec. 31.—No. 1 white, 12-12½c.; fancy amber, 10-11c.; No. 1 amber, 9-10c.; fancy dark, 8-9c. Extracted, white, 5½-6c.; amber, 5-5½c.; dark, 4-5c. Beeswax, 24-25c.

Minneapolis, Minn., Dec. 31. — Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

San Francisco, Calif., Dec. 30.—White comb, 10-11c.; amber, 7½-9c. Extracted, white, 5½-6c.; light amber, 4¼-4¾c.; amber colored and candied, 3¾-4¼c.; dark tule, 2¾-3c.

Beeswax, fair to choice, 24-27c.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN,

Kansas City, Mo.
C. C. CLEMONS & Co., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

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WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
WILLIAMS BROS., 80 & 82 Broadway.

St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.
S. H. HALL & Co.

Milwaukee, Wis.
A. V. BISHOP & Co.

Boston, Mass.
E. E. BLAKE & Co., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. MCCULLOCH & Co., 380 Broadway.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central ave.

ILLINOIS.—The annual meeting of the Illinois State Bee-Keepers' Association will be held at the State House, in Springfield, Feb. 24 and 25, 1897. The State Farmers' Institute meets the same week—including all the State live stock associations—and our Executive Committee, along with them, arranged for this date, in order that the Legislature might be in good working condition. (We all know what for.) There will be an effort made this winter to get a Pure Food Bill past, and that means bee-keepers want a hand in it, to see that the adulteration of honey shall cease FOREVER AND EVER. Two years ago we succeeded in getting an Anti-Adulteration Bill through the Senate, but it failed in the House, only for want of push. Let bee-keepers throughout the State impress upon their Representatives the importance of such a bill, and come to our meeting to refresh their minds on the subject.

Railroad rates will be no greater than a fare and a third, which will be announced later. Our programs will be issued along with the other State Associations named above.

JAS. A. STONE, Sec.
Bradfordton, Ill.

Doctor's Hints

By Dr. PEIRO.

100 State Street, CHICAGO, ILL.

Indigestion from Over-Eating.

We are all inclined to relish the delicacies, and the want of restraint over our appetites is nearly certain to get us into trouble. Too fatty foods, or over-indulgence in rich desserts, are likely to occasion a form of indigestion more or less painful or protracted. When this is the case, the first and best remedy to use is large quantities of hot water—as warm as can be drank—with a quarter teaspoonful of soda, to neutralize the fats in the stomach, and so make them digest more quickly. But this big pint of water and soda should be taken every half hour, to get prompt and permanent relief.

Toothache from Eating Candies.

Who hasn't had toothache from eating candies—especially the good, old-fashioned molasses candy, made at home? Its stickiness is apt to loosen some decayed tooth. That lets the sweets down to the roots, and, fermenting, soon sets up a howling toothache. Here is where big mouthfuls of hot water, with a little piece af alum—as big as a small white bean, say—is likely to stop the pain until you have time to consult a dentist, anyway.

Taffy not only wrecks artificial teeth, often breaking a plate in two, but not infrequently pulls a loose tooth out of its socket. So look out!

Honey and Tar for Coughs.

I don't say that this combination is the most palatable in existence, but I know it is an excellent cough syrup.

Take a tablespoonful of liquid tar—the druggists keep it; put it into a shallow tin dish and place it in boiling water until the tar is hot. To this add a pint of extracted honey, and stir well for half an hour, adding to it a teaspoon level full of pulverized borax. Keep well corkt in a bottle, and when you need a reliable cough-syrup you will have it.

The dose is a teaspoonful every one, two, or three hours, according to the severity of the cough.

How to Dispose of a Chill.

You'll come home some day this winter with a chill like an ague, and if not cared for at once it may prove a great deal worse the next day than the chill would indicate. So you had better dispose of it at once by getting into a bath of just as hot water as you can endure, putting a quarter of a teaspoonful of hartshorn in the water. Stay in the bath for half an hour, and then jump into a nice, warm bed and cover well. The probability is that by the next morning you will be all right.

Negligence that May be Expensive.

A form of negligence that gets us into trouble, often, is to step out of a warm room in your shirt-sleeves, just to run to the barn a moment, without first putting on your heavy coat. Now, during that brief time you've taken a cold that may result in your staying in bed with a lung fever for some weeks, and cost you a $50 doctor's bill.

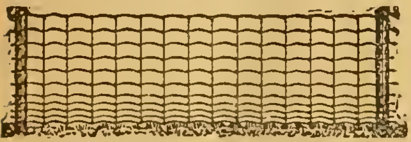
Bottom Prices

BRING US BIG TRADE.
GOOD GOODS KEEP IT.

If you want the best supplies that can be made at a little less cost than you can buy the same goods for elsewhere, write to us for low prices. 1897 **Catalogue** soon ready—ask for it and a free copy of **The American Bee-Keeper** (36 pages).

Address,
THE W. T. FALCONER MFG. CO.,
JAMESTOWN, N. Y.

Mention the American Bee Journal.



The Only Coiled Spring Fence.

It has taken us ten years to convince the public that **elasticity** is absolutely necessary in an efficient and durable wire fence. It was the Coiled Spring that did it. We own the original patent on this device. "A word to the wise is sufficient."

PAGE WOVEN WIRE FENCE CO., Adrian Mich.

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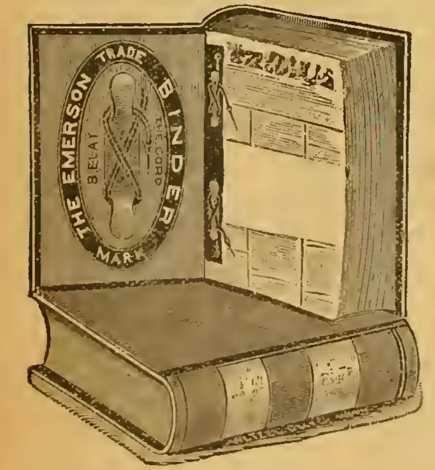
CARLOADS—

Of Bee-Hives, Sections, Shipping-Cases, Comb Foundation, and **Everything** used in the Bee-Industry.

I want the name and address of every Bee-Keeper in **America.** I supply Dealers as well as consumers. Send for catalogs, quotations, etc. **W. H. PUTNAM,**
RIVER FALLS, Pierce Co., WIS.

Mention the American Bee Journal.



We have a few of these Emerson stiff cloth-board binders for the American Bee Journal. They make a splendid permanent binding, and hold a full year's numbers. The old price was 75 cts., postpaid, but we will mail you one for **only 60 cts.**, or with the Bee Journal for one year—both together for $1.50.

GEORGE W. YORK & CO.,
CHICAGO, ILLS.

THROAT AND LUNG DISEASES,
DR. PEIRO, Specialist
Offices: 1019, 100 State St.,
CHICAGO. Hours 9 to 4.

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—FOR—

Foundation Making.

Send For OUR CATALOGUE,
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Address,
CHAS. DADANT & SON,
HAMILTON, ILL.

WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

Ask Your Friends to Take This Journal.

PATENT WIRED COMB FOUNDATION

Has No Sag in Brood-Frames

Thin Flat-Bottom Foundation

Has No Fishbone in the Surplus Honey.

Being the cleanest is usually worked the quickest of any Foundation made

J. VAN DEUSEN & SONS,
Sole Manufacturers,
Sprout Brook Montgomery Co., N. Y.

Muth's HONEY-EXTRACTOR
Square Glass Jars.

Root's Goods at Root's Prices.

BEE-KEEPERS' SUPPLIES in general, etc., etc. Send for our new catalog. "**Practical Hints**" will be mailed for 10c. in stamps. Apply to—

Chas. F. Muth & Son, Cincinnati, Ohio.

Mention the American Bee Journal.

Cut Prices to Move Stock!!

There are a few items of desirable stock left of the goods secured of Thomas G. Newman when we took charge of his supply business here. In order to close these out and make room for fresh, new goods, we have decided to offer these at prices which will make them go.

The following is the list, which will be corrected as the stock is sold; if you see what you want here, order AT ONCE, or you may be to late:

V-Top Langstroth Frames, 75c per 100; 250 for $1.25; 500 for $2.
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Contributed Articles

Production of Comb Honey vs. Extracted.

BY R. C. AIKIN.

The question of how much more extracted than comb honey can be produced, remains unsettled. We have for years been taught, and have generally accepted as true, that two pounds of extracted can be produced where but one of comb can be. I have not believed this statement, and do not yet think it proven. Many good apiarists—and who would not knowingly represent an untruth—have asserted that they can get double, and even more, of extracted over that of comb. In order to show that there are some mistakes made in the estimates, and to stimulate those so inclined to make more definite experiments, I write this article.

It is now over 20 years that I have been producing honey. I think, without exception, there has not been a year that I have not produced both comb honey and extracted, and in the same apiary. Without any very close estimates I had always thought I could get from 3 of comb to 4 of extracted, to 2 of the former to 3 of the latter. The last few years, however, I have put the ratio at about 3 to 4 as more nearly correct, tho this ratio would not apply at all times and in all localities; but in a series of years in most locations it would be more nearly right than the higher ratio.

It has *always* been my practice to keep *strong colonies for honey-gathering*, the strength being maintained by discouraging or preventing swarming, and by doubling.

The general factors governing in the matter are strength of colony, rapidity of flow and temperature.

ILLUSTRATIONS FOR COMPARISON.

1st, a weak colony. The flow slow and the temperature low would confine the colony to the brood-chamber almost exclusively. Raise the temperature and still they would be loth to leave the brood-chamber. Increase the temperature and flow both, and they would do fair to good super work, either for comb or extracted. A good flow and low temperature would give *some* honey in extracting-combs, and but little or none in sections; but the colony with sections would *pack the brood-chamber* more solidly than the one having the extracting-combs.

2nd, a strong colony. Flow slow and temperature low would pack the brood-combs and put some, possibly, in the extracting-combs. Flow slow and temperature high would be apt to put *nearly all* honey in the extracting-combs, and possibly a little in the sections. Flow good and temperature high would rapidly fill the extracting-supers and sections, both; and if unlimited room in both, nearly all the honey would go into the extracting-combs, while the comb-honey colony would pack the brood-combs and put the balance in the sections. Flow good and temperature low would fill the brood-combs well and do good work in the extracting-combs, and fair in the sections.

Now while the weak colony cannot build comb with the temperature low, they can and do pack the brood-chamber solid. If sections were on they would not work them, because they cannot; but the same colony having extracting-combs would put some in them near the brood-nest. A rapid flow and temperature high enough so they can build comb rapidly, or go to any part of the hive, the comb-honey colony will put all they can in the brood-combs, and work a corner or end of a super of sections; but if it had extracting-combs it would put the honey mainly above and the brood below.

If one keeps only weak colonies he may expect the per cent. of extracted to be much above that of comb honey; but if good to strong colonies, they can preserve heat enough to build comb most of the time. The colony that has to build comb to receive the honey as it comes in will almost always pack the brood-chamber; but, on the other hand, if they have combs ready-built they will—when given unlimited room—put nearly all the honey above and fill the brood-combs with brood and pollen.

If the honey-flow be in the summer—basswood or clover—the weather will nearly always be warm enough for comb-building, hence strong colonies at such times will gather about as much when run for comb as for extracted. I admit there will not be as much in the sections as in extracting-combs; but right here is where nearly all are at fault in their estimates. Only the honey in the super is counted, yet the comb-honey colony has usually from 10 to 20 pounds more honey in the brood-combs than has the other. The more room with full sets of extracting-combs, the more the super will get the honey to the disadvantage of the brood-chamber. The stronger the colony and the warmer the weather, the more the tendency to store in the extras and leave the brood-combs light. If the weather be so cool as to interfere with wax-work and still have a good flow, the ready-built store-combs give the colony quite an advantage over the one that has to build, hence in such case the extracted-honey colony would do much the best. I think right here is where my experience has been so different from that of others. It lies in two facts: I keep strong colonies—stronger than the average apiarist—and my honey season has been in the midsummer when the weather was hot. My basis of calculation has been hot weather and strong colonies.

While at the Lincoln convention I learned from the Nebraska people that their flow comes in the fall, with generally cool weather, and especially cool nights. These cool days and nights would make it difficult to build comb, yet the secretion of nectar went on and the daytime was warm enough to let the bees gather. I remember a little experience in Iowa on that line, when the cold at night drove the bees from the sections or stopped work in them.

There is also another condition that favors a larger yield of extracted honey, and that is when the flow comes very *suddenly*, and to some extent when it continues very freely. An abrupt flow that would fill the brood-combs in two or three days before wax-secretion gets fully started, would result in loss because there would be no place to store; but I have never but once had such experience. That one time filled the brood-combs and 16 drawn sections, and the foundation in the other sections was being workt, and new wax beginning to be added. It is clear that in this case the ready-built combs was a gain. It is now conceded by many that unfinisht sections are good property. I consider them valuable to use even if the honey in them were to be extracted. There are times when the flow is abrupt and free, that they would be of service; but the greatest gain to be derived from them is in getting the bees started in the sections.

Keeping a colony on scales and taking a daily record is a very good way to find out many things about results under the various conditions. I have for many years kept a scale hive, but I have lost much of the benefit by not keeping a permanent record in a book. The season of 1895 I had three apiaries. One was run for comb, one for extracted and a little comb, and one for extracted only. The scale hive showed a daily gain during the flow of a little less than 2½ pounds. The total gain was 62 pounds, and the time 26 days. In 1896 the flow lasted 25 days, and the average gain was two pounds per day. In 1894 the flow lasted 30 days, and gave a total gain of 60 pounds—2 pounds per day.

Now right here I want to give my experience for seven years with three apiaries of 200 to 300 colonies, and with both comb and extracted honey produced. The year 1890 was a good year. The average yield was 150 pounds per colony. I have not now the figures, tho I have a rather clear remembrance of general results. This year was the one experience previously referred to in which the flow came very abruptly and freely, when there were 16 unfinisht sections per colony on to start with. The flow was very free for a week or more, and then not so free, yet fair to good, lasting 53 days. Counting the surplus and winter stores, the average gain was about 3½ pounds per day. The extremes of yield were 25 pounds for the lowest and 250 pounds for the highest colony. Add to this the winter stores, and the average daily gain for the best colony was about 5½ pounds. In 1891 the yield was about 100 pounds per colony, with *probably* about 3½ pounds the average per day. In 1893 there was a fair yield; it came rather abruptly, but not of very long duration. The years 1894, 1895 and 1896, have been previously given.

Now there was one thing that was plain in those years: Invariably the comb-honey colonies wintered better. The best year of the seven—1890—the best yield from any one colony was a comb-honey colony, tho I must admit that the best colonies were run for comb honey. Some pretty fair colonies were run for extracted, and, on the 2 to 1 plan, should have shown as much as the comb-honey colonies. The two years of 1894 and 1895 I did take more extracted per colony than comb, but the following springs I found how I got it, when the bees of this lot were starving to death, while the comb-honey lot were well supplied with stores. In 1896, I watcht the matter carefully, and when I left my extracted colonies with stores equal to the comb-honey colonies, I got no more from the one than from the other. Taking the seven years throughout, I am now thoroughly convinced that I should have been better off had I taken less from those run for extracted honey. I would have had more bees alive in the spring, and better colonies when the flow came.

There are two evils in the use of the extractor. The first is a disposition to take unripe honey. The second is to take *too much*. As before shown, there is a strong disposition on the part of *strong* colonies, having a lot of empty combs above, to put the honey there, and when once there we are prone to extract it, thus leaving the colony short of stores. With me this is no theory, it is a fact proven by experience.

Now if your flow is in the fall, or when the weather is too cool for comb-building, it is evident you can get more extracted than comb. If you keep weak colonies the ratio will be still more markt. But with strong colonies and good comb-building weather, the difference is by no means great. Never forget to count the contents of the brood-chamber when estimating the work of a colony.

There is one other point often forgotten: A normal colony will have a surplus of wax that goes to waste when run for extracted honey. I do not believe we lose 20 or more pounds of honey when the colony builds comb. The bulk of wax used in the sections would be secreted if the colony were run for extracted, just the same.

My next article will treat of the cost of producing and marketing the two kinds of honey, etc.

Page Co., Iowa.

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The New Constitution and Amalgamation.

BY DR. A. B. MASON.

I would like to say to the readers of the American Bee Journal that in replying to Mr. Newman's "criticism" I had no thought of "inviting an unpleasant personal controversy," nor a controversy of any kind, and had no idea that a "criticism," of the Constitution adopted at Lincoln, was considered so sacred as to debar criticism, especially after the author had said that "a lively discussion should be the result" of its publication, and I thought I had as good right to point out what (to me) seemed to be some of the fallacies of the "criticism" as its author had to point out what he considered some of the "incongruities" and "lack of completeness" of the New Constitution.

I don't remember to have made the "assertion" that the General Manager had not "submitted the question" to the Advisory Board, but to me the natural inference from what he did say was, that he had not, and would not, do so. Here is the language of the "criticism" that led me to that inference:

"The whole thing is so incongruous and incomplete that it seems necessary to refer it back to the next convention at Buffalo, for revision. Before it is in proper shape to present to the 'National Bee-Keepers' Union,' it needs a thorough overhauling and reconstruction......There is, therefore, nothing left for its advocates now to do but to await the action of the convention next year."

With that statement before me, it doesn't seem to be "nonsense" to state that the General Manager *did* make a "decision in the matter of submitting amalgamation to a vote;" and from the number of letters I have received from well-known bee-keepers, commending my criticism of the "criticism," I know I'm not the only one who drew the inference I did; and the forceful articles of the Hon. Eugene Secor, and Editor W. Z. Hutchinson, of the Review, that have appeared in the American Bee Journal in favor of the adoption of the New Constitution by the National Bee-Keepers' Union, should not be lightly esteemed.

It seems a little strange to me that any member of the Advisory Board of the National Bee-Keepers' Union should for a moment entertain the thought of refusing the reasonable request of such an organization as the United States Bee-Keepers' Union; and that any one of that Board should use the following language is beyond my comprehension: "I should say, *submit the criticisms to each voter, and put it to vote.*" (Italics are mine.) It doesn't seem *possible* that any one of that intelligent Advisory Board could possibly think of submitting "criticisms" to the members of the National Bee-Keepers' Union. The request was for the submission of the Constitution to a vote, and for the General Manager, or the Advisory Board, to "submit" any criticisms, or make any suggestions, either for or against its adoption, when submitting it to a vote, would be entirely out of place.

Since the Lincoln convention I have received the membership fees from 10 bee-keepers, and as in each case it was uncertain as to which "Union" the fee should go, each person was written to for more definite instructions, and in each instance the reply was definite. They wanted their money to go to the Union that proposed to prosecute adulterators.

I favor amalgamation because it will put more money into the hands of the Board of Managers, than will be paid in if amalgamation is not accomplisht; and because the United States Bee-Keepers' Union will take up the matter of adulteration, which is a more important matter than that which has been so successfully handled by the National Bee-Keepers' Union.

The services of the United States Bee-Keepers' Union will not be needed to prosecute adulterators in Ohio, for we have a pure food law that "fills the bill," and a commissioner and assistants that have done, and are doing, efficient service in enforcing it.

Toledo, Ohio.

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Winter Stores—Sundry Questions Answered.

BY G. M. DOOLITTLE.

QUES.—"I wish you would tell the readers of the American Bee Journal what you think of my mode of wintering bees, for if it is a good plan, others may wish to try it. I have five colonies of bees and when I examined them the first of October I found they had the two frames, next the sides of the hives, solid full of honey; the next two frames were at least three-fourths full, while the remaining frames were nearly or quite one-third full. I use eight Hoffman frames to the hive, and they are spaced 1⅜ inches from center to center. Do you think they have stores enough for winter?"

ANS.—Yes, and not one colony in 20 will consume the amount of honey you speak of before the first of the May following. Many are often puzzled to know how much honey a colony should have in the hive on October first to insure safety as regards stores, so they will not be liable to starve. After years of experimenting along this line, I now allow from 20 to 25 pounds of honey to each colony to be wintered on the summer stand, and from 15 to 20 pounds for those which are to be wintered in the cellar. That is, I see that all colonies have as much as the smallest number of pounds given, but where all have plenty I do not take out any, even though some colonies have as high as 40 to 50 pounds. If any lack in stores, then I take from those colonies having more than is needed, to supply the deficiency in others. A Hoffman frame filled full, when spaced as above given, will hold not far from six pounds; that would be 12 pounds for the two outside combs. The next two would contain about four and one-half pounds each, or nine pounds, while the remaining four, at say two pounds each, would be eight pounds, this making about 29 pounds in all, which is four pounds more than the highest amount I think is needed for out-door wintering.

BEES PACKT FOR WINTER OUTDOORS.

QUES.—"The hives are single-walled and set on a rack about 18 inches from the ground in a fence corner. The fence is six feet high and tight. I have left the super on and a cushion of planer shavings fills this super. I have packt all around the hives and between them with leaves, except the front. The top and sides are boarded up so as to keep all dry during the winter. Is this as good as chaff-packing would be?"

ANS.—I should say that my correspondent's bees were pretty well fixt for winter, and probably will winter nearly, if not quite, as well as if in chaff hives. Why I say, "if not quite," is that the front of the hives have no packing, as will be noticed. Where hives face the south, as I think all hives should, there being no packing on the south side of the hive, every time the sun shines during the winter it will heat up the front side of the hives, this causing the bees to break cluster and roam along the inside of the warmed up hive, while many bees will be enticed out through this means, to perish in the cold which they will encounter outside as soon as they take wing. This will cause the loss of many bees during the sunshiny days of winter, providing the breaking of the cluster often, does not cause them to get the bee-diarrhea and die altogether. Now had this front side been chaff-walled it would have taken nearly all day to have gotten it comfortably warm, when the warmth so stored up would have helpt very much in keeping the frosty temperature out at night. Then there is an objection in having more than one colony on any stand or bench, for where they are so fixt it is necessary to have the hives closer together than is convenient for manipulating them to the best advantage; besides the annoyance which always comes from the whole on the rack or bench being disturbed when any jar or noise is made while working at any individual hive.

CONSTRUCTION OF SHADE-BOARDS.

QUES.—The correspondent next wishes to know how "shade-boards are constructed;" and says, "My hives face the south, and the bees hang out in summer."

ANS.—Shade-boards are used for two purposes: First, to shade the hives in summer; and second, to shade the entrances, so as to keep out the snow and cold winds of winter, and the sun from shining on the entrance so as to entice the bees out to fly when the atmosphere is too cold for them, as spoken of above. For this, any wide board answers all purposes, the same being set so as to lean up against the front of the hive, and also being long enough to reach two-thirds the way up the front of the brood-chamber. For the former, a light frame-work is made, generally of carpenter's lath, with lath nailed on the frame at set distances apart, while over the whole is placed a sheet of the largest-sized tin; or building-paper cut to the right size may be used in place of the tin. If this paper is kept well painted it will last well. I use tin, but others prefer the paper. The shade-board should project over the front side of the top of the hive, far enough to shade down to the entrance, in hot weather, while it is better not to shade the entrance during May, as the sun helps in warming the hive for brood-rearing. A stone or brick is generally necessary, placing the same on top of the shade-board, in all places where the wind can strike, to keep these boards from being blown off.

COLOR OF HIVES.

QUES.—He next says: "My hives are painted brown. Would the dark color make any difference?"

ANS.—If the hives are thoroughly shaded the color will make little or no difference, but for hives which stand in the sun no other color should be used in painting except white. Hives painted white can stand in the sun without inconvenience to the bees, and with no danger of the combs melting down.
Onondaga Co., N. Y.

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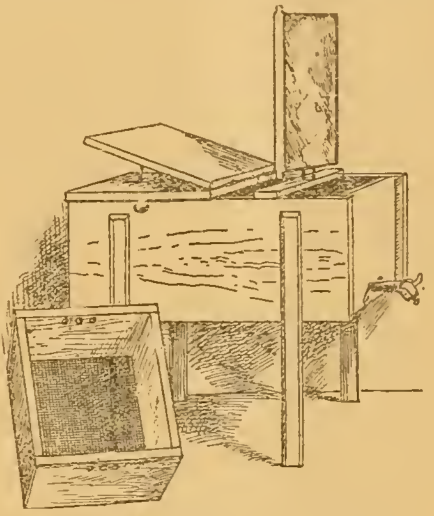
Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offer on page 29.

Handy Uncapping-Box and Its Use.

BY C. E. PHENICIE & BRO.

The accompanying illustration is our uncapping-box with a comb in position to be uncapt. You will notice a bar across the box, through which a pin is projecting upward, which acts as a pivot when the center of the end-bar is placed upon it. One side of the comb is uncapt, when it is swung around and the other side cut off, the cappings dropping into the box. The inside consists of two boxes with wire bottoms, one of which is standing outside.

The object in having two boxes is this: When one box becomes filled with cappings or pieces of comb, it is slipt to the left and allowed to drain while the other is being filled; when they are both full the one to the left, which the honey has all drained out of, is emptied in the wax-extractor; the full one is then slipt to the left, and allowed to drain while the other is being filled. The honey can be drawn off at any time through the faucet, shown at the right. The cover, which is now folded back, is closed when not in use, which makes its free from ants, robber-bees, dirt, etc., and also furnishes a convenient table or work-bench. We have had one of these in use for five years, and would not think of running an apiary without it.



Handy Uncapping Arrangement.

[Mr. O. O. Poppleton, when here a few weeks ago, described an uncapping-box that, in outside appearance, must be very much like the one above. The internal arrangement, however, is different. Mr. Poppleton's, while about twice as long as broad, is made so as to take his frames crosswise. The combs are uncapt on a cross stick, the cappings falling into the box near the end. In the other end the sliced-off combs are hung, and sometimes the man with the knife will have stored in the box quite a number of combs ahead of the other man, who is extracting. If there is one person, he uncaps until the box is filled with combs, and then he is ready for the extractor.—EDITOR.]—Gleanings.

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Surplus-Yielding Honey-Plants of Florida.

BY A. F. BROWN.

Unlike many of the Northern and Western States, Florida is divided into several distinct classes of soils, each affording a peculiar floral and timber growth of its own, therefore often from localities only a few miles apart one's surplus crop of honey comes from different sources.

The purpose of this article is to give a brief description of the honey-yielding plants, trees, and shrubs found on the several classes of soil, with data as to the time of year, quality and yield of surplus honey, as I am acquainted with them, from a bee-keeper's point of view.

The division of soils are commonly spoken of as "high pine land," "low flat woods," "high hammock" and "low hammock," "oak scrubs," "river swamps," and a "low-scrub palmetto barren" along the coast, also at places along the coast and Florida Keys—stretches of black mangrove swamps, and at places along the east coast and south Florida are open prairies of a few hundred acres to several thousand acres in extent.

In my remarks I will take the divisions of soils in rotation, giving the names and a short description of the "surplus"-yielding plants, trees, etc.

THE HIGH PINE LANDS.

First comes the high pine lands. This is principally yellow pine timber and black-jack oak; it has but two native plants that give a surplus—yellow partridge pea and limeweed. The partridge pea is a small, bushy plant 24 to 36 inches high, and its much-spread yellow blossoms give a dark amber honey, yielding 50 to 60 pounds of honey per colony, from July 1 to October. (All yields spoken of are extracted honey.) The honey comes principally from glands at the base of the leaf, and the stems and joints.

Limeweed, defined by Dr. C. V. Riley as belonging to the clover family, looks similar to dog-fennel, grows 30 to 36 inches high, and has a small white blossom. It lasts from Sept. 25 to Oct. 15. It yields amber honey, 40 to 60 pounds per colony.

As fully one-half, if not more, of our orange groves are situated on the pine lands, I shall place the orange in this class. It blooms in February and March, yielding a very light amber honey, and frequently runs to 100 or 150 pounds per colony. I have known an average colony on "scales" to bring 7 to 10, or 12 up to 14 pounds per day from orange alone, and to keep this up for 10 to 14 days in succession. I have secured a crop of 10,000 pounds of pure orange honey in a single season, and I pronounce it one of our best surplus sources, second only to black mangrove in quality and yield.

THE LOW FLAT WOODS.

This is timbered sparsely with a stunted growth of yellow pine, and embraces many swamps and cypress ponds. Where there is much "swamp" there is generally found a good growth of gallberry and saw-palmetto, both of which, where the growth is rank and abundant, yield good crops of honey.

Gallberry is a small shrub 6 to 10 feet high, with small white blossoms, from March 15 to May, and yields 20 to 60 pounds of very choice white honey per colony, though the yield is uncertain.

Saw-palmetto, of the palm family (too well known to need a description), throws open its immensely large and fragrant blossoms in April and May, and yields 50 to 75 pounds of light amber honey per colony. This is a very reliable source for surplus.

In the swamps are found a good deal of soft maple and magnolia bay—the former yielding honey freely, but coming in January bees are too weak to take advantage of it, and it is used to build up the colonies for the gallberry and palmetto flows later on.

Cypress yields a large quantity of pollen in January and February, though but little if any honey.

Magnolia bay yields some dark honey, though not enough for surplus.

THE HIGH HAMMOCKS.

These, as a rule, are not large in extent, the growth being principally hardwood timber—oaks of the various kinds, with some hickory and magnolia, andromeda, loblolly bay and saw-palmetto, yellow jasmine and wild grape, affording a good spring and early summer pasturage, and giving from 100 to 150 pounds of surplus per colony. The larger share comes from andromeda and saw-palmetto.

Andromeda is a small, shrubby tree 10 to 20 feet high, with small, white, bell-shape blossoms. It blooms in February and March, and yields 50 to 60 or 75 pounds per colony, of dark amber honey. It is very reliable.

The various oaks afford more or less honey, and large quantities of pollen, but coming early it goes towards breeding up colonies.

Yellow jasmine blossoms Dec. 20 to March, and yields large quantities of pollen, and but little if any honey.

Magnolia, loblolly bay and wild grape come in April and May, and afford some little surplus, though coming at the same time as the saw-palmetto. I am not in position to state how much, or as to the quality of the yield.

THE LOW HAMMOCKS.

These are found principally bordering on the rivers and creeks, and also in vast stretches along the coast. The growth is principally hardwood timber and cabbage palmetto palms, and various vines, etc.—usually an excellent range for surplus honey. The growth of timber is very similar to the high hammock, with addition of the cabbage palmetto palm, various gums, ash and maple, and in places some basswood and youpon; also more wild grape and yellow jasmine than are found on the higher hammocks. From these various trees and shrubs the surplus crop will run from 100 to 200 pounds per colony.

Basswood throws open its blossoms early in June—about the 5th to the 10th, though the area of this is comparatively small.

Cabbage palmetto palm opens about July 1, and lasts till Aug. 5 or 10. It is not certain, but some years it gives a good crop of very light straw-colored honey; 50 to 100 pounds per colony. There are thousands of acres of this cabbage palmetto palm in our State; when it does yield, it makes quite a difference in our total output of surplus honey.

In the low hammocks the grape affords quite a little surplus honey in May, when colonies are strong; also sweet bay—a shrubby bush or small tree. This is especially so on the stretches of low hammock near the sea coast.

THE OAK SCRUBS.

Extensive area of this is found at various places throughout the State, and all along the East Coast and West Coast for long stretches. The usual growth is oak bushes, 10 to 20 feet high, and spruce pine, usually young sapling timber, yet at places there are heavy forests of spruce pine, which are generally spoken of as "spruce pine scrubs." In most scrubs both oak and spruce are found more or less a growth of andromeda. This and the oaks are the only surplus-yielding shrubs or plants worth mentioning, and as both come very early in the season, when colonies have not had time to build up strong, there is little encouragement for a bee-keeper to locate in such places, except where he is in reach of, or has access to, other classes of soils that may border on the "scrubs." The spruce pine timber yields vast quantities of pollen, an item worth jotting down in a bee-keepers' calendar.

THE RIVER SWAMPS.

The St. Johns river swamps are the only ones I am personally acquainted with. The growth of timber here is sweet gum, black gum, ash, soft maple, water oaks, cabbage palmetto palm, cypress, and in places some willow, with yellow jasmine, grape, bamboo and other vines. Gums and cypress largely predominate. These swamps are generally narrow stretches seldom more than a mile or so wide, and are bordered by saw-palmetto and gallberry, running back into pine lands, hammocks or scrubs, and consequently afford good locations, as a rule.

The river swamps in the northern and northwestern portion of the State afford the main surplus ranges there. They are somewhat different from the St. Johns river swamps. In the swamps of the northwestern portion of our State—take the Apalachicola river swamps, for instance—there are large amounts of tueplo gum, ti-ti, and snow vine, all of which afford good yields of surplus. I am told that the tueplo gum gives their main crop, coming in April. The ti-ti is found in large quantities all through southern Georgia, and around the big Okefenokee Swamp in the lower portion of that State and the northern part of this. In that section—the Okefenokee Swamp—the ti-ti—a small, bushy shrub or tree 10 to 20 feet high—yields their main surplus crop—a delicious white, nice-flavored honey, and the yield is 50 to 100 pounds per colony from the one source. It comes in March.

The scrub barrens along the coast vary from a quarter to a mile wide, the principal growth being saw-palmetto and a few oak bushes, with some sea grape, a small shrubby bush. This strip of saw-palmetto growth along the coast yields very abundantly, and the crop of surplus honey is as sure and certain as from any source I am acquainted with. The saw-palmetto is the only source there, except at a few places where there are stretches of black mangrove swamps along the inside rivers. May is the season for the palmetto here, and the crop is 60 to 100 pounds.

Black mangrove swamps are found at only two or three places on our East Coast, at a few places on the West Coast, and around the Florida Keys and the Ten Thousand Islands, and extreme southern portion of the Florida coast. Along the coast it is a small branching tree, 10 to 20 feet in hight, growing only in salt water marshes, and, as a rule, it is the only tree growth occupying the areas where it is found. On the Florida Keys and the Ten Thousand Islands it grows to be a large tree, 40 to 60 feet high. It bears a small, white blossom, opening June 10 to June 20, and lasting five or six weeks. The yield from this one source has been marvelous—from 300 to 400 pounds per colony for whole apiaries, the average yield being about 200 pounds per colony. The quality of the honey is good, and it is almost as clear as water, and fully as white as any honey produced anywhere. I have harvested 42,000 pounds of mangrove honey in one season from a trifle less than 200 colonies. In my immediate neighborhood that year there was something like 400,000 pounds (200 tons) harvested. This variety of mangrove is very susceptible to cold, and in the big freeze of Feb. 8, 1895, most of that north of the Florida Keys was killed to the ground, and in places killed out, root and branch.

There are no black mangrove locations now to be found this side of the swamps of the Ten Thousand Islands, or on some of the Keys, and no one has ever had a big apiary in either of those places to test the yields there. There are thousands of acres of red, white and yellow mangrove along our coast and southern rivers, but none of these yield honey, and in fact belong to a distinct family from that of the black mangrove.

On the open prairies of the coast and South Florida grow thousands of acres of wild sunflowers and golden-rod, both of which furnish good yields of surplus honey in the fall. Of the golden-rod there are two species, both of a dwarf variety, growing about 15 inches to 2 feet high, one blooming in September and the other late in October, and runs into November. The wild sunflower is a rank-growing, branching plant, 6 to 10 feet high, with yellow blossoms, having a brown center, diameter of blossom 1¼ to 1½ inches. It blooms early in October, and lasts fully a month, furnishing a light-amber honey, and of good flavor. The yield is 50 to 75 pounds per colony.

Wild pennyroyal fields are found throughout South Florida, in the low flat woods, low scrubs and around swamps, creeks, and at places in the open prairie are large tracts of wild pennyroyal. This has yielded large crops in years past, but of late I know of no one who gets any large crops from it. It blossoms from Dec. 10 to March, having small purple blossoms, on a head similar to clover. The plant I would define as a bushy weed, 12 to 30 inches high, often of a creeping habit, especially when growing among the brush in among rank grass. The honey is very clear, and of a delicious flavor. I can give but one cause for it not giving the abundant yields of late years, as it has in the past. That is, for several years we have had a series of cold winters, with more or less rainy, raw days. As I remember, when the pennyroyal used to give good yields, our winters were, as a rule, warm, with much pleasant, sunny weather. I know that in places it has yielded as high as 100 to 150 pounds per colony, and I consider any plant that has in the past given such yields, will do so again when conditions are right, so I class it among our surplus sources.

Although I have gone into detail in the explanation of our various surplus sources, according to the divisions of soils they are found on, the subject is far from complete, and I hope that others who read, and are interested, will also add their experiences. Volusia Co., Fla.

⁂

Getting All the Honey in the Sections.

BY C. C. PARSONS.

In my efforts to produce comb honey I have observed that the same manipulation does not invariably produce the same result. For many years I tried to keep my bees from swarming, and those that would do as I wisht them to do, gave me a much more handsome profit than those that persisted in swarming.

As I stumbled along in the darkness, I kept my eyes open and occasionally a ray of light was thrown in, and a note of its revelation was made. I have ever been satisfied with the crop of comb honey, when I could get the bees to begin early in the sections placed upon a full brood-chamber, if they were kept well supplied with sections; but whenever they began to seal up the honey in the tops of the brood-frames before they began work in the sections, they would either swarm or fill the brood-chamber with honey and sulk through the season.

Those that swarm, if properly treated, are as good as the best of those that do not swarm; and these are the ones that I cause to store in the sections all the honey they get, after swarming.

Without entering into a discussion of plans, I will simply give the *modus operandi* as recorded in some of the most successful cases, and later on I may tell why such things were done in such a way.

The hives for these swarms are prepared in advance of the time they are needed, as follows: I place one empty comb between two empty frames (or frames filled with foundation) in one side of a hive, and beside them a queen-excluding division-board, and over these frames is also placed a queen-excluder. The rest of the hive is filled with wide frames full of sections. When a swarm issues, at the commencement of the harvest, if it be from a hive that already has a case of sections on it, the case of sections is removed to the new hive; if not, a new case is put on. I close the entrance except the part in front of the 3-frame apartment, remove the hive from which the swarm issued, put the new hive in its place, and hive the swarm in it. A few days later I shake some of the bees from the old hive into the new. When the harvest is over, you will find all the honey in the sections, and the three frames filled with brood.

It often happens that, should the honey be left on a few days after the honey-flow has ceased, the tier of sections next to the division-board will be cut down and made ready for the queen to begin, and partly filled with pollen; but beyond this I have never seen a particle of pollen, and of late years I place a comb there to receive this pollen.

A swarm that does not issue during a honey-flow should not be put into a hive arranged as above; neither can an artificial swarm, or transferred colony, be counted upon with that degree of certainty that characterizes the natural swarm.

Jefferson Co., Ala.

CONVENTION PROCEEDINGS

Proceedings of the Illinois State Bee-Keepers' Convention Held in Chicago, Nov. 18 and 19, 1896.

BY A SPECIAL BEE JOURNAL REPORTER.

[Continued from page 7.]

PRESERVING COMB HONEY FROM MOTHS.

QUES. 12.—What is the best way to preserve comb honey from the moths, during summer?

Dr. Miller—How many think you need to do nothing? [Six.] How many think you need to do something? [One.] Which testimony will count the most? If the one can prove the honey will not be ruined by the worms, then the testimony of that one. Sometimes the minority is in the right. Then as to necessity; will someone give us a reason for the necessity, or reason for saying there is no necessity?

Mr. Baldridge—I never found any necessity for doing anything with comb honey, after it had been taken off the hive. In Wisconsin I ripen my honey by taking it off the hives and tiering it on top of the hives on a flat cover in the hot sun; I tier five to six supers high with a wire screen over the top and a board over that, with a space to let out the hot air, so it won't get too hot; it ripens very thoroughly without any bees; I never saw any worms in honey; I ripen hundreds of pounds on top of the hives in the hot sun; it would get hot, yet it was ventilated so it would not injure it; of course no one would think, unless, it was bee-keepers, but what the bees were in them.

Mr. Stone—Do you use excluders or bee-escapes?

Mr. Baldridge—The supers are taken off, the bees removed, and put on top of the cover, and left there for a month or two.

Mr. Stone—Then a cover is still on top of this?

Mr. Baldridge—There is a wire screen on top, and the cover raised up about an inch, so as to get it ventilated, and in case it should rain, it would not rain upon it.

Mr. Grabbe—I think Mr. Baldridge's plan may be a good one, but I don't think it is practical; I have had a great deal of honey taken from hives, taken right from the bees; one season I had $60 worth stolen, of comb honey. That is an exceptional locality where Mr. Baldridge is located, that he can tier it up on the hives, and it is safe.

Mr. Green—I think where a person keeps black bees, he will find worms in the comb honey occasionally; I used to find some. Also, through another reason, if there is pollen stored in sections you are liable to find worms, but at no other time; the bee-keeper who keeps Italian bees and is sufficiently free from pollen will not be troubled with moth-worms, I think.

Mr. Kennedy—I have had some trouble, not always, but when I have taken it off early in the season and stored it in the honey-house for several weeks or even a month; there would be moths in it, that is, in summer. I know it is very discouraging when one has a nice lot of honey, to find in a month or two it is badly damaged. I agree with Mr. Green, that it is more liable to be damaged when there is pollen in the sections; that possibly that is the only time; but I think I have had it damaged when there was no pollen—at least that I could discover.

Dr. Miller—I believe I could take both sides of the question. I have had many and many a section where there was no pollen in it, good straight goods, full of honey, and at the lower edge attacht to the bottom-bar of the section directly would appear a little white dust, and after a little while the worms would be seen there, and if left alone the honey would be very badly damaged; I had to brimstone it, and more than once, too, or I would have suffered heavily if I had not done it. While this discussion was going on, I was turning over in my mind why it was, of late, I had so little trouble in that direction; I have used very little sulphur, and the damage by worms has not amounted to anything for three or four years; the last two years don't count at all, for I had no honey, but of late certainly there has been a difference; I suppose there is very little black blood in my bees now, but there was much before. How about your bees, Mr. Kennedy? How much black blood?

Mr. Kennedy—I should say about one-half, on the average.

Dr. Miller—I think very likely that may be the difference, for I know that formerly you could not have gotten me to allow a crop of honey to stand, without brimstoning it, unless you paid me a good amount of money; and I have some doubt whether I will brimstone any more.

A Member—I brimstone all of it in a room together, perhaps as much as once in two or three weeks at first, so as to make sure those hatching out would get the brimstone; for of course the egg would be left just as good as ever, but I believe if you have bees that are mainly of Italian blood you will not be troubled; at least I suppose that has made the change in mine.

Dr. Miller—There is very much more danger of worms in combs where there is pollen, and I can tell you another thing that makes danger: Let a dead bee be there, and you will find very often that dead bee will be the nest of one or two worms, and I have often seen the worm start where there was a dead bee, or remain on the dead bee for a time, and then extend through the section of honey; I think that is a fact, although I have never seen it mentioned.

Mr. Stone—I would like to ask where the moth's eggs are in the honey, after it is in the honey-house, if they were there before the honey was put into the honey-house. For, when my honey is once in the honey-house, I have never seen a moth-miller around the honey at all, and I have never been bothered with the honey-moth; it is my experience, when moths get in there, they make an effort the first thing to get outside, and they never seem to touch the honey or go near the section-cases that have the honey in.

COMB HONEY MANAGEMENT—TIERING UP.

Ques. 13—Should bees be restricted to one super until well filled, or should we tier up and leave them on the whole season?

Dr. Miller—How many would leave all the sections on until the honey-flow ceases? [One.] How many would say, Take off sections as fast as the super is completed? [Eleven.] We have that pretty well settled, that the majority would not want to leave them on the whole season. The first part of the question, however, is not answered. Would you restrict bees to one super until well filled? Suppose I put on five supers to start with, is that correct?

Mr. Ellis—My practice long ago was to let them get well begun, in one super, about one-third to one-half, then immediately raise it; then if the upper one is not filled, (and colonies differ in that respect) when they get the other third or half done raise it, and put another under. It depends largely upon the size of the colonies. The greatest success I had was in the Champlain valley, New York, when I had as many as seven supers on at once. There were 30 pounds to the super, making a capacity of 210 pounds. That is the most I ever had; but it was an exception.

Dr. Miller—That question involves the other question, as to when supers shall be removed?

Mr. Ellis—My experience there was to remove as fast as filled—filled and sealed clear down.

Dr. Miller—Would you wait until every section is sealed efore removing?

A Member—I could not do that in the last of the season.

Dr. Miller—I would not be sure to do it in the first of the season, either. The looks has a great deal to do with it. If you want the honey very white, it should not be on a great while. The bees may finish up the very last cell before you take it off, but very often you will have in the four corner ones a few cells unsealed; I don't want to wait for that, to take off the super, and if necessary I return those four corner sections. So as long as people demand the white sections of honey we must be careful about leaving them on long. I was looking for some one to say there would be a good deal of difference between the first and last of the season. When the first super is one-third filled, in some cases I put a second super on, and on that same colony, later in the season, I would not put anything on, when it was about three-thirds filled. Your expectation as to the harvest: Like a good many other things in bee-keeping, you have to do a little guessing, and you can't always guess rightly. I have a good many times put on a single super to begin with, and then I had too much on for the whole season.

Mr. Baldridge—This is to be considered somewhat in putting on a number of supers: Would it not depend—whether you waited for your supers to be entirely filled—upon whether your sections are in wide frames, so you can remove them as soon as filled?

A Member—Remove section by section?

A Member—If the sections are filled completely, why not remove them, and give them additional room, without adding so many supers?

Dr. Miller—That you could do. It seems to me that if you got five or six supers on, those first raised up would not be so apt to be sealed as if there were fewer supers on; that is, the bees would not seal them so quickly, and consequently the honey would not be so white as if they were sealed up quickly. There is such a thing as getting too much room in supers.

Mr. Green—I think Mr. Baldridge is quite right, when you come to comb honey. I never saw any advantage in having over three supers on at one time, if those are properly lookt after. You must not forget this, that sometimes when one colony needs three to four supers, another colony right beside it would be entirely satisfied with one super.

Mr. Ellis—I want it understood that mine was partially an experiment; it was the only time I had more than four supers on, but I shaded the hive, ventilated it—opened all the ventilators, kept them open, and as fast as supers were occupied I gave them more. It was an exception right through; three to four supers were the rule that season.

PRICE OF COMB HONEY VS. EXRTACTED.

Ques. 14—How much per pound should consumers pay for extracted honey of the same grade, when comb honey sells to the consumers at 22 cents per pound?

Dr. Miller—The question is, at what price per pound for extracted will you be willing to change from comb honey at 22 cents, to produce extracted honey? I will call for a price?

A Member—10 cents.

Mr. Green—11 cents.

Mr. McCartney—12½ cents.

Dr. Miller—Let us take the vote then, if there is no other price named. How many say 10 cents for extracted honey, when comb honey brings 22 cents? [One.] How many say 11 cents? [Four.] How many say 12½ cents. [Four.]

Mr. Baldridge—I will call your attention to the question. What is the question?

Dr. Miller—"When comb honey sells to comsumers at 22 cents per pound, how much per pound should consumers pay for extracted honey, of the same grade?" In other words, the question now is, What is that honey worth to me on my table?

Mr. Ellis—The same price.

Mr. York—The question is, what should consumers pay?

Mr. Cooley—How many ounces should there be in that comb honey—would it be a full pound section?

Dr. Miller—Yes, in this case it's supposed that a section is a pound, and it is 22 cents.

Mr. Baldridge—The question is, no matter what the price of comb honey, what should extracted be worth of the same grade, or value to the consumer, without any reference to the cost.

Mr. Ellis—I want to suggest looks and appearance on the table as a factor in the matter; it makes two questions of it; in one case, I want that to eat myself; in the other case, we are going to have company at our house, and I want my table to look nice.

Mr. Grabbe—I don't think we can say what the consumer should pay, he decides that for himself; very often, he pays something for looks, for style, not for actual, intrinsic value; we can't compel a man to pay for that; it is what he wants that he pays for.

A Member—I produce honey and I sell at the same price; there are so many people who take extracted honey of the same quality in preference to the comb honey; many, many families use it in preference, why should they not pay the same price?

Mr. Chapman—I think it is merely a matter of choice; some people prefer to eat the extracted honey, and you could not sell them comb honey; intrinsically they are worth the same, but the extracted should be worth a little more.

A Member—And the most of the consumers don't get a pound when they buy the comb honey in sections, whereas when they buy extracted honey, they get a full pound, and I have a good many customers who are willing to pay equally the same price for extracted honey that they do for comb honey, and take it in preference.

Mr. McKenzie—There are some exceptions to that rule.

Dr. Miller—If I wanted it for my own use, and I pay 22 cents for comb, if the grade is the same, the same quality as if drained out of that section, I would be willing to pay 24 cents for extracted honey; but if for company, for appearances on the table, and I wanted a small amount of it bought, I am only willing to pay about 15 cents for the extracted.

Mr. Baldridge—There is a good deal in the question, when it is fairly and fully analyzed. It is immaterial, for that matter, what it costs the bee-keeper to produce it; the simple question is, what can consumers afford to pay for it compared to the price of comb honey? My experience is, as a dealer with consumers—and I have had about 30 years of it—that the majority of consumers are willing to pay as much, if not a little more, for the extracted honey than for the comb honey, when it is properly presented to them: and my business has been to carry that into practical operation, and I have been able, by taking that view of the matter, all through this experience to get as much for five pounds of extracted honey as I could get for six pounds of comb honey, including of course the wood; one is sold at net weight and the other gross, and my sales are all based upon that idea, that a pound of extracted of honey is worth more to the consumer in general than a pound of comb honey; and that it is not his business to know what it costs me to produce it, no more than it is the business of the consumer of butter to know what it costs the farmer to produce his butter. If one farmer can produce his butter at 10 cents per pound, and it costs another 15 cents, it is none of the consumer's business whether that farmer who produces it at 10 cents asks 20 cents, the same as the other man; it is the producer's business to get a good price for what he has to sell; the result is, that I got right along, year after year, as much for five pounds of extracted honey as I got for six pounds of comb honey, including the wood. Now, I say it should sell at least at the same price, that is, the consumers should pay the same price. A year ago, I advocated that idea, and the bee-keepers in the vicinity where I live thought it could not be done, but I demonstrated to their entire satisfaction that it could be done, by trying a small town down in Kane county as an experiment. I canvast the town from house to house with a sample of each—a sample of section honey and a sample of extracted. I secured in that town in three days time 70 orders—as my order-book would show if I had it here—and out of that number—but to go back a trifle. I put the price the same—five pounds each at an even dollar, which was lower than my general price. I secured but three orders in that little town out of 70 for comb honey—67 were for extracted at one dollar, and three for comb; so I found the consumer was willing to pay just as much for the extracted honey, pound for pound, net weight, as for the comb honey.

BI-SULPHIDE OF CARBON FOR KILLING WORMS.

QUES. 15—Has any one had any experience in the use of bi-sulphide of carbon, instead of sulphur for killing worms?

Mr. Chapman—It is one of the best methods of killing any kind of moth-worms, or common house moth-worms, or any kind of insects that might get in a closed room. It is very simply applied, and a pint bottle would fill a room full of the fumes of the gas, which is always heavier than the air, so in a room 20x20 feet a pint bottle would kill every moth or every grub in the room.

Dr. Miller—Would it kill those in the top of the room?

Mr. Chapman—Not unless the liquid is placed in the top of the room, so that the fumes would reach that part.

Dr. Miller—How would you apply it?

Mr. Chapman—It would have to be used carefully on account of its explosive qualities. It is sufficient merely to put it on a sponge or a bunch of old rags, place it close to and above what you wish to have fumigated—not below it. It does no damage whatever to the appearance of any substance that I used it on. It is merely a gas, and does not change or affect the color of anything upon which it is used. You must not have any fire near it, as it is a very dangerous explosive. When you pour it on the sponge, shut up the room and travel away as fast as you can. It also will kill ground squirrels and moles, by just placing a small cloth or rag near the hole, and because it is close to the place where the animal is it necessarily kills. This drug has been known for a long time, and it can profitably take the place of sulphur; I would say it is very reasonable in price; it is as low as 15 cents for a pint, and a pint would be sufficient for a room 20x20 feet.

Mr. Periam—Bi-sulphide of carbon will kill anything that has life that you want to kill; it will kill a man; we don't want to kill men or animals, but all insects or vermin, rats, mice, gophers, or anything that burrows into the ground, and there is only one thing against it, and that is, that you must not bring a light near the fumes—it is explosive. Now in a room, or between the walls you have to saturate the whole place, or else you can't kill mice above ground; under ground it is very easy to kill them. If the house is shut up entirely, it will kill every mouse in the house, if it is shut up carefully and there is enough of it used. Every bee-keeper raises more or less grain, and now if you have weevil of any kind, any little thing that works in grain—if you take the bin that the weevil is in, and saturate the top of that bin of grain, or the warehouse, I don't care how extensive it is, it will kill every weevil or insect in that grain, and it has this peculiar effect, that it does not injure any substance that it touches, no more than gasoline, for instance

Mr. Stone—Its use was recommended in our Second Annual Report, and it was taken from some one's recommendation. I believe in Nebraska it was used for the extermination of prairie-dogs.

HONEY-PRODUCTION IN THE PECOS VALLEY.

QUES. 16—What do the members know of honey-production in the Pecos River Valley, New Mexico?

Mr. Baldridge—I don't know very much about the Pecos Valley, except this: I know it is a very good honey locality, the same as I know Salt River Valley, Arizona, is a first-class honey locality; they have the same seasons in the Pecos Valley that they have in the Salt River; it is near a market, which is quite a consideration. Pecos Valley is a tract 100 miles in length along the Pecos River, where they have a great abundance of water; it is 15 to 20 miles wide, and an immense amount of alfalfa is grown there, probably as fine an alfalfa country as there is in the United States, if not superior to any other locality.

A CHICAGO POLITICIAN AS A BEE-KEEPER.

Mr. York—We have with us one of our County Commissioners—Mr. Cunning. He is a bee-keeper—I suppose he is a very "Cunning" bee-keeper. I don't know how much honey he produces, but I think we would like to hear from him.

Mr. Cunning—As one of the County officers, I am glad to welcome you to Chicago. So far as being a practical bee-keeper or a great producer of honey, I will have to say I am in the bee-business for pleasure. For years, I have wanted to make a study of the bee. When I was a boy, I was very much interested in the bee. I have four colonies in my back yard, which is only about 25x30 feet, so you see I have a very small space for the bees. I had two colonies to start with, last spring; now I have four. I lost one swarm—it got away. I hived it all right twice, and finally it left. The others I had no trouble with. Last year I had four swarms from two colonies, and I had no trouble with them at all. I have this year about 100 pounds of honey; some I have not taken out yet—I don't need it. I judge this honey comes from the prairies west of Douglas Park and Western avenue. I know there is a great deal of sweet clover around there; it is very fine honey. I find a great deal of pleasure right here in Chicago in taking care of these bees, tho of course I have a very poor place for them. When they swarm, they generally go over into an alley, or alight on the wagons, or up on the roofs of the houses, or on a board sticking out, or something of the kind. Of course, I am a little of a politician, and it makes quite a good deal amusement for the neighborhood. They all come out when they hear my bees are swarming. I don't know whether they think I have any scheme in keeping bees, or not. There was a city newspaper reporter that came to my house a few months ago. He had heard all about my bees and wanted to write them up. He wrote an article, tho he never saw a bee before in his life—and he made a very good story. After that, I heard of people coming to the County Board, wanting to go into the bee-business. Quite a few people came who thought they could keep bees in their backyard, and make a little money out of it. People came from the South Side, North Side, and different portions of the West Side, but at just that time we were having politics pretty lively here, and I was engaged in the campaign, and I did not have time to answer all of those people; I told them I would write them, and tell them all about it! [Laughter.] *(Continued next week.)*

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Editorial Comments.

Our Advertisers, we have every reason to believe, are all worthy of the patronage of our readers. We do not intend to permit any other kind to get into our advertising columns. Hence we invite you all to patronize them, and thus do what you can to encourage honorable dealers. We do not endorse those who advertise in other bee-papers, unless they be such as are also found in the Bee Journal. We say this for the reason that some have complained to us, and unjustly, for advertising for firms we did not advertise for. We *try* to be extremely careful about admitting advertisers into our columns, but should any of our readers be dealt with unfairly by any of them, we trust they will report to us at once. We won't knowingly advertise for dishonest firms, and we shall consider it a great favor to be informed concerning any unsavory deals made by our advertisers. We are extremely anxious to help kill out all frauds who scheme to fatten upon the hard-working and economical bee-keepers. That's a part of our work.

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A Sweet Clover Lawsuit.—It seems there is now a case in the common pleas court of Delaware, Ohio, wherein will be decided whether or not any officials have the right to destroy sweet clover when growing upon private property. Dr. H. Besse, an old reader of the American Bee Journal, is the plaintiff in the case, and the township trustees of Delaware are the defendants. The Gazette—a local newspaper—contained the following in its issue of Dec. 29, 1896:

> A damage suit was filed in the common pleas court last Saturday night, that grows out of a strange circumstance. Dr. Henry Besse, one of the best known apiarists in this country, seeks to secure damages in the sum of $3,210 for the cutting down of a clover crop upon which his 97 colonies of bees depended for food for the winter. The defendants in the case are the members of the board of township trustees of Brown township—Messrs. Lyman P. McMaster, James Salmon and Joseph B. Glenn.
>
> The petition is a long one, and recites that the plaintiff is in the bee-business, and owned a plat of ground of 4½ acres, upon which he planted melilotus, or sweet clover, and while the growth was in full bloom the defendants cut it down; and as the result, his 97 colonies of bees were "idle," which otherwise would be "working" and bringing him in a profit in his business, so it is alleged.
>
> We are informed that there was a law that once prohibited the cultivating of this clover, and the defendants thinking that it was still in force, took it upon themselves to get the sweet clover cut down, hence the suit for the recovery of money alleged to have been lost by the transaction. The matter will be fought to the end. All parties to the trouble are well known residents.

This will be an interesting case. It is not now known exactly, writes Dr. Besse, when it will be brought to trial, as there are several important cases ahead of it. But it will likely be very soon.

Dr. Besse, in giving us the particulars of the matter, says:

> I had a fine field of sweet clover in full bloom when the trustees of my township served notice on me to cut it down and destroy it, as a noxious weed, which I refused to do. They then came with 12 men and a mowing machine and destroyed all that I had growing on our farm, and also on an adjoining farm, the owner of which had given me the privilege of sowing the same. Since then I have employed an attorney to look into the case, and he finds that the law classing sweet clover with noxious weeds was repealed in our State (Ohio) last winter, and melilot, or sweet clover, is not mentioned in the list of weeds to be destroyed by the farmers of Ohio. This I trust will be good news to all Ohio bee-keepers at least, if not to the whole fraternity who read it.
>
> Now I have commenced suit against the trustees in our court for damages, and shall prosecute it.
>
> I am a bee-keeper of 60 years' experience, having commenced when 15 years old. H. Besse.

Before entering the suit, it seems that Dr. Besse, being a member of the National Bee-Keepers' Union, applied to the General Manager for directions as to what he should do. After some time, he was informed that the Advisory Board were divided in their opinion, and had come to no conclusion. After that, Dr. Besse's attorney wrote several letters to the Union, but says he received no reply thereto.

Now, it seems to us that if ever there was a case that the Union should undertake, it is this very one—where it would seem such an easy matter to win. It would establish a very valuable precedent, and raise the Union several notches in the estimation of the bee-keeping world. Of course, we suppose some of the able Advisory Board had good reasons for deciding against the Union's aiding Dr. Besse, or they would have favored it.

In our next number we expect to have something interesting on this very subject of sweet clover as a noxious weed. It was fully discussed at the late Chicago convention, and will be found in the report which is now appearing in these columns. We shall also keep our readers informed regarding the progress of Dr. Besse's suit, as all will be greatly interested in the final court decision.

◆

Questions About the Two Unions.—Mr. E. S. Miles, of Crawford Co., Iowa, sends to us some questions regarding amalgamation, etc., which he would like to have answered, and as they will no doubt interest others, we give them here, taking the liberty to attempt to furnish the information sought. Here is what Mr. Miles writes:

> Mr. Editor:—I am watching the progress of the United States Bee-Keepers' Union with interest, and my dollar is ready to go in if it gets to running all right.
>
> 1. If I should join the National Bee-Keepers' Union, would I be entitled to a vote on the adoption of the New Constitution?
>
> 2. If it failed to carry, "where would I be at?"
>
> 3. There is some doubt in my mind as to who is to be the President, Vice-President and Secretary of the new organization. If the officers of the National Bee-Keepers' Union are to constitute the Board of Directors of the United States Bee-Keepers' Union (see Art. IV., Sec. 2 of the New Constitution), and the officers elected at the Lincoln meeting of the North American Bee-Keepers' Association are to become members only (see Art. III., Sec 2) of the New Union, where are the President, Vice-President, Secretary and General Manager coming from? I cannot see any provision in the New Constitution for their election this year; nor can I see how the members of the old Union can elect officers for the new?
>
> 4. Did the old North American Association die when the new Union was born? If so, why did they elect officers and fix the place of meeting again?
>
> I have not intended this for a criticism at all, but am merely hunting for information. E. S. Miles.

We number our replies to correspond with those above:

1. Yes, if you are not now a member of the Union, and if done so as to get your vote in before Feb. 1, 1897. Send your dollar at once to the General Manager—Thos. G. Newman, Station B, San Francisco, Calif.—who will then forward you a blank ballot to use in voting. We presume, however, that your vote, written upon any kind of paper, and sent with the dollar in time to reach Mr. Newman before Feb. 1, will be counted all right.

2. If the New Constitution fails of adoption by the old Union this month, you would be a member of the old Union, working under its present Constitution. It would take another dollar to become a member of the new Union, and gain the advantages proposed by its Constitution. This is just where we, and others, have claimed—that there is no need of two national organizations in the interest of bee-keepers.

2. We believe the understanding at Lincoln was, that the officers elected there as President, Vice-President and Secretary, will fill those respective offices in the United States Bee-Keepers' Union, whether the amalgamation takes place or not; and the New Constitution says very clearly that those who are officers of the old Union when amalgamation takes place, are to be the officers of the new, until the election in the following December—which would be next December, if by the votes of the old Union the two societies are declared to be united, Feb. 1, 1897.

We might say here, that according to the Constitution of the North American Bee-Keepers' Association in force at the Lincoln convention, the officers elected there would not enter upon their duties until Jan. 1 of the following year—which was the first day of this very month.

4. Yes, and no. Our understanding of the matter was, that the old North American Bee-Keepers' Association should be in existence until it was decided by the old Union (this month) whether it would favor amalgamation. If it does not so favor, then our interpretation of the feeling at the Lincoln convention would be, that the new Union is to go ahead, elect its Board of Directors, and begin to do business under the New Constitution. It already has its Executive Committee, which could send out ballots to its 60 or 70 members, and get things in working order very quickly.

But we are fully expecting the success of the present amalgamation proposition, by the adoption of the New Constitution by the old Union this month, when afterward we can all labor together for the upbuilding of the grandest bee-organization this country ever knew.

The Weekly Budget.

Prof. A. J. Cook, writing from Los Angeles county, Calif., Jan. 2, said: "We have had another nice rain. I think prospects for 1897 are fine."

Mr. Walter S. Pouder, of Indiana—a reliable bee-supply dealer who advertises regularly in the Bee Journal—wrote us Jan. 2: "I am building hopes on 1897 being a prosperous year. Indiana is covered with a carpet of white clover, which will bloom this year."

Mr. Thos. G. Newman has removed from San Diego, Calif., to Station B, San Francisco, Calif., where all his correspondents will now address him. Mr. Newman reports that the health of Mrs. Newman "is now vastly improved" since residing in San Diego. This all will be pleased to learn. We wish Mr. Newman much prosperity in his new home.

Mr. Geo. W. Brodbeck, of Los Angeles, Calif., in a letter dated Dec. 30, wrote us as follows:

"The prospect for the coming year to the bee-keeper is very promising, for our winter rains thus far have been all that could be desired. As an absolute assurance, tho, there must be late spring rains, and the moisture must penetrate to a depth of 5 or 6 feet. Then, again, localities vary, due to soil and distance from the ocean. The difference in climatic condition and rain precipitation within a scope of 30 miles, and even less, is really wonderful. For instance, when Prof. Cook recently reported a rainfall at Claremont (this county) of 5 inches, the amount here was less than 2 inches. Thus you see that a report favorable or unfavorable from one section does not indicate the general condition of things in this State."

Rev. E. R. Hardy, of Buffalo, N. Y., recently contributed two articles on bee-keeping to the illustrated Buffalo Express. Gleanings said, in referring to them: "The pictures are half-tone reproductions from real life, and a cursory reading of the articles seem to show that Mr. Hardy is well up on the subject." We can't have too many such articles, for the general public is not very familiar with bees and their habits. But we believe that articles on honey and its use as food would be more beneficial, both to the public and to bee-keepers.

Mr. O. L. Hershiser, of Buffalo, N. Y., writes us that he is very much gratified to learn that the United States Bee-Keepers' Union will hold its 1897 convention in Buffalo. He says that he will "try in every way to make it a great success." That was one reason why Buffalo was selected, we believe. All expected that Mr. Hershiser would be a good man to work for a successful meeting, and there is no doubt about those expectations being realized. Mr. H. knows how to do it.

Mr. R. A. Burnett, of this city, upon receiving the Bee Journal for Jan. 7, wrote us:

"Rather spicy reading in the American Bee Journal of this date. I trust that only good may be the result."

We thought Mr. Burnett would be interested in the first number for 1897. There was quite a good deal in it concerning a certain kind of commission-men. But Mr. Burnett is not one of the kind that deserves denunciation. He, rather, is entitled to a big slice of encouragement on account of upright dealing.

Mr. R. F. Holtermann, editor of the Canadian Bee Journal, writes us this concerning the Toronto convention, held Dec. 9 and 10, 1896:

"We had the best meeting of the Ontario Bee-Keepers' Association we have had for years. The Minister of Agriculture was there and gave an address."

We are glad to hear of the successful gathering. There should be no good reason why each succeeding meeting of any association should not be "the best meeting." If it isn't, some one is nearly always to blame therefor.

Dr. Miller writes us Jan. 5, about a very sudden change in temperature at Marengo, Ill. He said:

"For two or three days the thermometer remained steadily at 55°, day and night. Last evening it began to change, and this morning it was 14° above 0."

We had a similar change here in Chicago at the same time. For two or three days it rained steadily, then the evening of the 4th it began to turn colder, and the morning of the 5th it was frozen solid. Since then it has been nice winter weather, with some snow. 'Tis still pleasant to-day—Jan. 7.

Mr. G. K. Hubbard, who went from Ft. Wayne, Ind., to California with his invalid wife two or three years ago, reports that "she has lately been much better than at any time in the last year," and that they will likely remain permanently in California. We are glad to learn of the improvement in Mrs. Hubbard's health, and we trust she may fully recover.

Mr. Hubbard also informs us that he has just sold to The A. I. Root Co. the good-will and entire right for the patent for the machine for putting together one-piece sections, known to bee-keepers as the "Hubbard Section-Press," as he is unable to give his attention to its manufacture.

Mr. R. C. Aikin, who contributes a valuable article to this number of the Bee Journal, is now writing a series of articles for Gleanings under the heading of "Ridgepole Musings." The rather toplofty first half of the name was suggested, we believe, from the fact that for several years Mr. Aikin kept bees in Colorado, several thousand feet above sea-level—on the very "Ridgepole" of the continent; and he is now in Iowa, where he is indulging in the "Musings" part of the heading. Judging from the first installment, the "Polings" of this new "Ridge Muse" will cause an "Aikin" (achin') for more of the same kind, on the part of those who "R. C.-ing" what he has to say.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Foundation in Sections.

1. Does it pay to use full sheets of foundation in sections?
2. Can I fasten the foundation in better with the foundation fastener? SUBSCRIBER.

ANSWERS.—1. I think most bee-keepers are agreed in thinking so. Nothing tells more strongly that a man believes in such things than what he does. I put full starters in all my sections.

2. Yes, better and faster.

Hiving Swarms on Frames Full of Comb.

We have been hiving our first swarms of bees on frames with only starters, in the 8-frame brood-nest, and immediately putting on sufficient supers. But now we have plenty of frames the Langstroth size filled with good brood-comb that would be desirable to use, instead of new frames. How can I use those old frames, and get the bees to go into the supers as readily as by the Doolittle method above indicated?

H. R. W.

ANSWER.—Perhaps you can accomplish your purpose by hiving the swarms on so small a number of frames that the bees will be to some extent forced to enter the supers to get all the room they need. Say give them four or five brood-combs when first hived, then ten days or two weeks later give the remainder. Dummies may occupy the vacant space till the full number of combs is given.

Producing Comb Honey—Leveling Comb in Sections.

I have 5 colonies in 8-frame dovetailed hives, and run exclusively for comb honey in one-pound sections. I want the honey for home use only. I keep all my queens' wings clipt.

1. How can I produce the most comb honey in one-pound sections, and get no increase of bees?
2. Can I get as much honey without the use of separators as I can with them? Remember, I only want the honey for home consumption.
3. I have some sections that I put starters of foundation in last summer, and the bees drew it out ready to put honey in them, but failed to do so. Will they be all right to put honey in next season?
4. How are combs leveled down? Is it necessary for me to level them? If so, what is the cheapest and speediest way to do it? J. S. F.

ANSWERS.—1. That's a pretty hard question to answer, and all would not agree as to the best way. John F. Gates has a way that he says works well in his hands. He has strong colonies that he calls "breeders," in large hives. These are box-hives, and from them no honey is ever expected. They are simply kept to produce strong swarms, and when the swarm issues the breeder is set in a new place and allowed to build up so as to be strong for swarming the next year. The swarm is hived on the old stand in a small hive, allowed to store all the honey in sections possible, and in the fall disposed of in some way—perhaps by uniting with one of the breeders—and the combs of the small hives melted up so the hives can be used again the next year.

Another way would be to proceed in much the same way with frame hives, uniting to the desired number in fall or the following spring.

2. It is generally believed that the use of separators makes no difference in the amount of honey obtained, altho it might be a hard thing to find any positive proof either way.

3. That depends upon the condition of the sections. If some honey was stored in them, and some of it allowed to remain through the winter, the honey will be granulated, and some of the grains being left in the cells when the bees fill them the new honey will be somewhat injured by the granulations. If, however, all the honey is cleaned out of the sections *by the bees* before it granulates in the fall, then the sections will be all right to use again, providing of course that they are all right otherwise. If allowed to stay on the hive after the harvest closes, the bees are likely to spoil them more or less by daubing bee-glue on the combs.

4. There is probably no better way than to use "Taylor's Handy Comb Leveler." It does the work so well and so rapidly that it would pay to buy one rather than to try to do it by any other way I know of.

Chaff-Hive Questions—Longevity of Bees.

1. What are the merits and demerits of the chaff hive?
2. How thick should the wall of a chaff hive be? I intend to make mine 4 inches.
3. Will an entrance ⅜x16 inches give sufficient ventilation for a chaff hive in the summer, and ⅜x4 in the winter?
4. During severe cold weather will frost and sweat accumulate in the chaff hive?
5. Don't you think buckwheat chaff would be extra-good to pack chaff hives? for no rain or snow can penetrate it; neither will it draw damp.
6. How much more honey will a colony consume in a single-wall hive during winter, than a colony of equal strength in a chaff hive?
7. What strain of bees live the longest?

B. T. S., Fellowsville, W. Va.

ANSWERS.—1. I doubt if I know enough to answer that question fully, and if I did, the answer might take up more room than could be allowed. A chief advantage is that sudden changes of temperature are less felt, and the bees are warmer than in single-walled hives. Some say it's a demerit to have such thick walls, for it takes longer for the heat of the sun to get through when an occasional warm day comes in winter.

2. Four inches will not be out of the way, allowing 2 inches or more of chaff.

3. Upon trial you'd probably like a larger entrance both in summer and winter, say ½ by 12 to 16 inches.

4. Yes, if the colony is weak enough and the entrance small enough.

5. I've no experience to speak from, but nowadays I think planer shavings are preferred.

6. I don't know that that has ever been determined.

7. I don't think it has ever been claimed that there is any difference in the longevity of the different races—as blacks and Italians—but there have been individual colonies whose owners thought they lived longer than the average. It might be a profitable thing to follow up such cases and try to fix such a habit.

Same Old "Manufactured" Story About Comb Honey.

I have encountered quite a few people within the last year who claim that comb honey can be made, and is made, without the help of bees. Recently I met a man who lives in Denison, who wanted to bet me $100 that he could take me to Omaha, Neb., and show me where such honey is made, and show me the very process. Also, that such honey could not be told from the genuine article, by the looks. When told that A. I. Root, for many years, has offered $1,000 for proof that comb honey could be successfully counterfeited, he said that was "a bluff" to defend his own honey, and that he would not own up to it if he did see it made. He further offered to take me to Omaha and show me the plant.

1. Is there any money available from A. I. Root or any one else that could be used to make such fellows show up, or shut up? The sentiment is quite general in our community that comb honey can be counterfeited. I have had as much, or more suspicion shown comb honey in my trade than toward extracted. One man that I sold some to, said his wife wanted to bet 50 cents that that honey had never been inside a bee-hive! I asked him why she thought so, and he replied that she said the sections could never have been inside a bee-hive and be so *clean*! That was all; it was simply suspiciously clean! Wouldn't that almost make any one tired? The man has known me for several years, otherwise I don't think I could have convinced him that the honey was genuine.

2. Now, Doctor, I don't want to seem presumptuous, but

it seems to *me* that if you would give the locality that each question comes from, in your department of "Questions and Answers" it would be of some value. Of course, *you* know the place the questions come from, but suppose I should desire to speculate on the question for myself, it would help me to know whether the questioner lived in Illinois, Texas or California.

E. S. M., Crawford Co., Iowa.

Answers.—1. Yes, there's an even $1,000 available from A. I. Root, and I think that any commercial agency will show him to be financially responsible for a good many times $1,000. That is, you can on your own responsibility offer any amount you please up to $1,000 for a pound of comb honey properly finisht without the aid of bees; then if your offer is taken up, and you have to pay the money, you can fall back on A. I. Root to make the offer good.

I think, if A I. Root's offer is called "a bluff," I would talk somewhat in this way: "See here, my friend, if you know where to get a pound of comb honey made without the intervention of bees that can't be told from the genuine article, you're just the man I want to see. I don't care to make any bet in the case, but I do want to buy, and I'll do something that's a good deal safer than betting for you. Bring me the pound of honey with satisfactory proof that the bees have had nothing to do with it, and I'll pay you $10 for it. [Of course, you can name any larger amount, or offer any piece of property, or agree to deposit a sum in the bank to be paid on receipt of goods.] This is no bluff on my part, for I can make money on the honey at the price I offer." In that case I think he'll either have to produce the goods, or shut up.

2. In some cases at least there would be an advantage in knowing something about the locality of the man who has a question answered. The matter may be thought over by our good friend, the editor. You know editors know everything, and I don't know much about anything but bees, and as Josh Billings says, a good deal that I know about bees ain't so. [All right, we'll *try* to know enough hereafter to indicate the locality of the questioner. But we don't "know everything" just yet.—Editor.]

Best Size of Hive-Entrance—Importing Italian Queens.

1. What is the best size for the hive-entrance? Ours is about ¼x8 inches, and I don't think it is large enough. I will tell you why. I have one Langstroth hive which is mouse-eaten in the entrance, and for three years it has more than doubled any other in results. I have several 10-frames besides it, but I prefer the 8-frame dovetail hives.

2. Will it pay me to import Italian queens? Will they do as well as the young queens reared from them?

P. A. N., Iowa.

Answers. 1 There may have been other reasons why that one colony did better than the others, but I've little doubt that at least part of the difference was due to the difference in entrances. I have gradually come to want my hive-entrances larger and larger. One-fourth by 8 inches is smaller than the smallest I ever had, and of late my smallest has been 12x½. At this time of the year the entrance is 12x2 inches, the entrance being closed by wire-cloth three meshes to the inch, allowing the free passage of a bee, but excluding mice. In summer some of my hives are raised up in the old-fashioned way, with a block under each corner, making it open clear around.

2. If you mean to furnish queens for all the colonies in an apiary of good size, I'm sure it wouldn't pay at all. It might pay for the sake of getting better stock, and as a rule I think you'd find the imported queens do as well or better than their daughters. But that would depend greatly upon the kind of stock already in your possession. There's nothing impossible about finding stock in this country better than any imported.

Keeping Bees in a Store.

Next summer I am going to put in my jewelry store a colony of bees in an observatory hive. I want to keep them in the store through the winter. The mercury ranges from 40° at night to 70° in the daytime. Would the bees do all right in such a warm room, if properly ventilated?

T. J. B., New Berne, N. C.

Answer.—Generally such things are failures, but I think not always. It's worth the trial. Give abundant entrance.

Why Melt Back Comb in Sections?—Flavor of Honey Nauseating.

1. Why do sections with full comb have to be cut back instead of letting the bees have the full comb to be refilled? I have a lot of sections which the bees filled and capt, but the honey was so bad (tasting like croup syrup) that I had to wash it out, leaving the sections filled with nice white comb. Now I thought of giving the bees the sections next spring, but having seen several articles about cutting them back, I ask the question for information.

2. Can you suggest any reason for the honey being so nauseous to the taste? It was very dark, and gathered during August and September—the second lot of sections put on the hive; the same colony having filled the first lot of sections earlier in the season with beautiful, clear, limpid honey.

C. M. M., St. George, Md.

Answers.—1. If the combs are perfectly white and clean, and if they do not come within a quarter of an inch of any other surface, then there is no need of cutting back. Often when combs are partly filled, they are daubed on the edges of the cells with propolis, and cutting back, or rather melting down, removes the glue-stained part. Also, there is danger that the part of the comb most fully drawn out, when put in a new position, will be so close to a separator or another section that it will be built to the adjoining surface.

2. Probably the source from which the honey was obtained, but I couldn't give a guess as to that. Possibly from aphides; possibly from something else.

Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

The Best Kind of Frames.

Query 41.—1. What kind of frames do you think are best, considering merely the convenience of the bee-keeper?

2. Considering the welfare of the bees?—Nebr.

P. H. Elwood—1 and 2. Quinby closed-end.

R. L. Taylor—1 and 2. The New Heddon.

Jas. A. Stone—1 and 2. The Langstroth.

E. France—1 and 2. The Langstroth frame.

Dr. J. P. H. Brown—1 and 2. Langstroth size.

Prof. A. J. Cook—1 and 2. Regular Langstroth.

G. M. Doolittle—1 and 2. Gallup and Langstroth.

Rev. M. Mahin—1. 12x10 inches. 2. 14x12 inches.

Mrs. L. Harrison—1. Langstroth. 2. A deeper frame.

G. W. Demaree—1 and 2. The standard Langstroth, 9⅛x17⅜ inches.

Eugene Secor—1 and 2. The Langstroth, for comb honey and cellar-wintering.

Mrs. J. N. Heater—1 and 2. The standard Langstroth frame, 17⅝x9⅛ inches.

Emerson T. Abbott—1. A modification of the Langstroth. 2. A frame not less than 12 inches deep.

J. E. Pond—1 and 2. I have experimented with about all the frames of any note, and consider the Langstroth frame, that A. I. Root has made for years for the Novice hive, as good as the best, both for convenience and welfare of the bees. It makes but little if any difference what kind of frame is used for the bees. Convenience of the master is the matter to consider.

J. A. Green—1 and 2. All things considered, I think a frame 6 inches deep, held at fixed distances, the best for both bees and bee-keeper.

H. D. Cutting—1 and 2. The Langstroth frame is the cheapest, but I prefer a deeper frame, but the hives cost more than a Langstroth hive.

W. G. Larrabee—1 and 2. I have never used any but Langstroth frames, and they suit me well enough, and it is my opinion that the bees are satisfied.

C. H. Dibbern—1 and 2. I use a standing frame 6x21¼, outside measure, and like it well. For general purposes, I think the regular Langstroth frame is hard to beat.

A. F. Brown—1. The standard Simplicity, 9⅛x17⅝ inches, for the average bee-keeper. For myself, in the production of comb honey, a frame 9⅛x14¼ inches, top-bar 16 inches. 2. In a warm climate like this (Florida) the above frames are as good as any.

Dr. A. B. Mason—1. I think the Langstroth frame is the best for my use. I have used only one other kind—the Gallup. 2. The old box-hive, or a divisible brood-chamber.

J. M. Hambaugh—1 and 2. Location and surrounding conditions have much to do with this query. In Illinois I should answer, for extracting, Dadants' methods, for both queries.

Dr. C. C. Miller—1. Frames at fixed distances, with spacers having the smallest possible point of contact, so the frames will not be glued together. 2. Closed ends, and closed, or nearly closed, tops. Warmer.

General Items.

May Go to Florida to Keep Bees.

I have kept bees since 1866. For several years it was a failure about every three or four years, but it has changed so that I am glad to get a good one every three or four years. It looks now as if we would have a good crop next year. Let's hope so.

I am so afflicted with rheumatism that I am thinking of moving to Florida next fall, and I want to ask some questions: 1. Would it be best to move my bees down there, or sell them here and buy more there? 2. What will bees cost there? 3. What would it cost to move them to Florida? 4. What is the best way?

R. R. STOKESBERRY.
Vermillion Co., Ind., Dec. 23.

[Will Mr. A. F. Brown, of Florida, kindly answer the questions asked by Mr. Stokesberry?—EDITOR.]

Report for 1896—The Clovers.

I had, spring count, 20 colonies, increast to 33, and my honey crop was rather poor, but of good quality—350 pounds. I sold it at 12½ and 15 cents per pound. I work for comb honey.

I have been experimenting with sweet clover, and think it will be a great honey-plant for northwest Missouri. The prospects for white clover are good. I am trying alfalfa, but have found out nothing certain, only that it will grow here. It failed to yield nectar the past season. It may be cut twice a year, and make plenty of hay. Stock of all kinds relish it if cut at the proper time. Alsike clover is fine bee-pasture. Success to the American Bee Journal.

J. E. ENYART.
Gentry Co., Mo.

An Enthusiastic Bee-Man.

I would not attempt to keep bees without the American Bee Journal, and I would like to say contrariwise to the correspondent quoted on page 808 (1896), that, getting "gold-standard prices" for my honey, I am going into bee-keeping more extensively next year.

I started (here in the South) last winter with three colonies in box-hives; transferred to 8-frame dovetail hives, and workt for comb honey, getting 80 pounds from one and 20 pounds each from the other two colonies, making 120 pounds of fine section honey. I increast, by swarming and purchase, to 10 colonies, and I have just purchased an apiary of 20 colonies, making 30 in all; 8 of the 20 are in 8-frame dovetail hives, and the rest in 8-frame Langstroth hives, which I will transfer to dovetail hives next spring.

There is some bee-keeping carried on here, along the Gulf coast, but it is almost all done with black bees and box-hives and "gums;" the honey gathered selling in the local markets at from 8 to 10 cents a pound. Section honey is selling at 15 to 20 cents. I sold about one-half of my honey at 20 cents, right here at home. The rest I used for advertising purposes—"sweetening the local editor" and creating a market for next year's crop (if there is one), and for home consumption.

ERNEST W. HALSTEAD.
Jackson Co., Miss., Dec. 21.

Report for 1896.

G. W. Bell came to town yesterday. He is probably the champion bee-keeper of Clearfield county. Last spring he had 31 colonies. He put 63 in winter quarters, thus more than doubling the number owned last spring. Besides this increase he took off 1,400 pounds of honey; of this amount 1,000 pounds was comb and the balance extracted honey. He says he has no difficulty in marketing it, at fair prices. He uses chaff hives, the lower story surrounded with chaff, affording ample protection against the coldest weather. One colony stored 100 pounds of honey during the past season. Two swarms which were united produced 112 pounds. He has the Italian variety of bees. In order to keep his stock pure he purchast a dozen queen-bees during the season. He is a master of the business and keeps abreast with the latest methods and improvements of the business.—Clearfield (Pa.) Daily Monitor.

Apis Dorsata Motion Seconded.

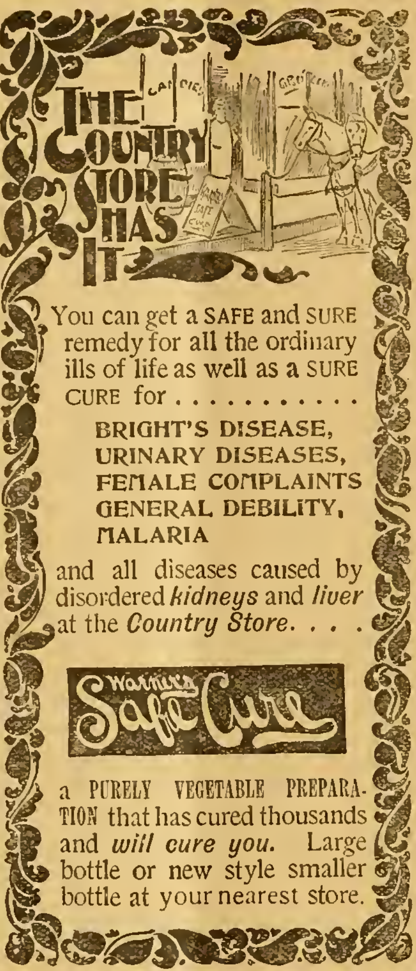
I arise to second the motion of Prof. Cook, made on page 789, in regard to the introduction of Apis dorsata by the Department of Agriculture. It seems to be just in line with the work of the Department, and so far there has been no good reason advanced by bee-keepers why the experiment should not be tried. I, for one, want those bees if they are good for anything, and if they are found to be good for nothing, no bee-keeper in the country will be any worse off for their having been tried. Will the editor kindly explain the best way "to set the ball a-rolling?" If there is anything to be done in this locality, in the way of a petition to the Secretary of Agriculture, or laying the matter before Senators or Congressmen, I am ready and willing to do it.

WM. RUSSELL.
Hennepin Co., Minn.

[Mr. Russell, you might write to W. F. Marks, of Chapinville, N. Y., as he has been quite active in the petition work for Apis dorsata.—EDITOR.]

Poorest Season for Years.

This has been the poorest honey season in this section for years. Last spring I had 85 colonies, and all seemed to be in good condition. Most of my hives have movable bottoms, and four 15-pound honey-boxes on each. There is an entrance at each end, so that in the summer-time it gives the bees plenty of entrance; when they are very strong in bees, and plenty of bloom, they can work at each end of the hive, which I think quite a benefit to them. My hives are also on legs about 10 inches from the ground. It is a hive I got up myself. I have owned and handled bees ever since 1871, and as above stated, this has been the poorest honey season I ever saw in this part of the country. I cleaned up my hives early in the spring, and placed on each hive four empty 15-pound boxes, so the bees would fill up on the poplar and basswood bloom, but the spring was very wet here, with the exception of about eight days in the time of the poplar bloom, when the bees did well, but it only helpt strengthen them while they were rearing brood; they became very strong by the time the basswood came into bloom, but there was so little of it that they did no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good. I sowed about one bushel of buckwheat seed very early, and it bloomed very nicely; the bees workt on it very well early in the morning, but soon slackt up. It never seemed to me they carried heavy loads of honey from it like they do from poplar and basswood bloom.

I did not take a single pound of honey last season. My bees ought to have been fed 600 or 700 pounds of sugar, but I neglected it, as other business was so urgent. But I have not lost hope yet. I have just examined them to-day, drawing out the bottom-boards and brushing them off, and find 5 colonies have died. A tenant lived on my place who was moving away, had 12 colonies, mostly in log gums, which I bought, and brought them home to-day. They now make me 92 colonies. I did not have a single swarm the past season. I winter my bees on the summer stands.

I am well pleased with the Alsike, sweet, crimson, and white clovers, which I purchast last spring, and sowed. It has a nice stand. If the crimson is what I think it will be, I intend to sow next season 20 or 25 acres. I have a good stand of Alsike and sweet clover also.

J. C. WILLIAMSON.

Logan Co., W. Va., Dec. 24.

* * *

Bees Did No Good.

I can't do without the Bee Journal. Bees did no good in this section this year. I did not get a pound of honey from 26 colonies, and I have heard of no one who did get any honey. Long may the "Old Reliable" live to gladden the hearts of those who love the little, busy bee! J. L. DIXON.

Carroll Co., Tenn., Dec. 15.

* * *

Bees a Failure this Year.

My bees were a failure this year. There was no honey at all until late in the fall. I lost bees from starvation in midsummer. I had only 2 swarms out of 17, and one colony died. I think what are left will live through the winter. The American Bee Journal is a welcome visitor.

H. M. PHILLIPS.

Dyer Co., Tenn., Dec. 16.

* * *

Bees Carrying in Pollen.

To-day we are having Florida weather—it was warm—68 degrees in the shade. I walkt out to my bees at 1 p m., when they were having a jolly good flight, and to my surprise they were carrying in pollen almost like late in the spring. We had only a little cold spell the last of November, which struck the bees a little hard. It had been warm, and came on them so suddenly, and they were scattered around almost too much.

The warm weather is very unfavorable for a peach crop next summer. The buds are showing out very close to blooming; in some localities they are reported in bloom. The growing wheat is looking extra nice. Rain is very much needed, for the streams are very low. L. A. HAMMOND.

Washington Co., Md., Dec. 13.

* * *

The Tall vs. the Square Section.

In renewing my subscription to the American Bee Journal, I cannot refrain from expressing my high appreciation of its value to me personally; it has contained so many valuable suggestions, not mere theory, but practically useful to all amateurs in our useful and interesting field of labor. It is indeed worth its cost many times to the sensible reader.

I have made quite extensive use of the "Danzenbaker" section this year, and find the change from the 4¼x4¼x1⅞ quite profitable; as you are aware, the section measures 3⅞x5x1⅝ for glass; the filled section when glazed weighs a plump pound, and sells by the case readily at 20 cents per section, retailing at 25 cents each, while the 4¼ cannot be retailed at 20 cents while the tall one is in sight. Our New York market

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Now it seems to us here is a splendid chance for any bee-keeper to supply his home demand after his own crop is all sold. Or, why not begin now to create a local honey-trade? Order one 60-pound can first, and start out among your neighbors and friends, and see what you can do. You ought to get at least 12 cents per pound in 5-pound lots, or 40 cents for 3 pounds. Some may be able to do even better than that, though we think that enough ought to be sold at these prices to make a fairly paying business out of it. Give it a good trial. Push it. It may grow into a nice winter's work for you.

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demands glazed sections; retailers will not handle the unglazed sections, with the risk of mutilation by customers who insist on "looking at the honey."

The bees enter and fill the $1\frac{5}{8}$ sections more readily and rapidly, being nearer the thickness of the brood-comb, and of course placing the conditions more nearly to the normal. The question advanced by some of "honesty" in the matter, I think cuts no figure; the sections are sold at so much each, and when filled and glazed weigh a pound, even the $4\frac{1}{4}$x$4\frac{1}{4}$x$1\frac{5}{8}$, which I use later in the season.

I have found that after Sept. 1 the bees do not fill the tall sections to the top within, say, three rows of cells, so I put on the $4\frac{1}{4}$, with quilts on top, and soon the top cells are filled.

It costs $1\frac{1}{2}$ cents to glaze a section; glass by the box, 8x10, cuts for two sections. Often I can get 4-inch strips from wholesale glass houses, and then it costs 1 cent. I fasten the glass in by pasting solid white writing paper on the top and bottom, cutting the paper $3\frac{5}{8}$ by $2\frac{1}{2}$ inches, and using good, strong dextrine paste, such as is used on postage stamps. This makes the handsomest package of honey one can see.

Long live the American Bee Journal.

Passaic Co., N. J. B. F. Onderdonk.

Painting Rough Lumber White.

On page 823 (1896) the question is askt about painting a bee-house white cheaply. It can be done by using the recipe given below. It need not be made of planed lumber; the coat of paint will stay longer on rough, unplaned lumber. It will last three years, in good condition:

Take skimmed sweet milk—get all the cream off; mix with 10 pounds of Spanish white, one ounce of fresh, air-slackt lime; sift it fine, and mix thoroughly by stirring. Apply it as you would paint. Be sure to cover thoroughly all of the wood. Two coats are all it requires to make a finish. It can be painted with lead afterward, and make a good job of it. I have had a good deal of experience with it. I have been in the painting business 60 years. S. T. C.

Advises Greater Neatness.

I saw a statement in the Bee Journal, of a correspondent who said that he used horse manure in his bee-smoker, while using it on the bees during the honey season, to quiet them. I also saw an account of a way to test barrels before putting extracted honey into them. The test was to blow the breath into them to find out whether they were perfectly tight or not. Now, do not such statements have a tendency to cheapen our honey in the market? What more dirty thing can one do than to blow his breath into a dry barrel where the staves are dry enough to take up the moisture? We have had enough of such stories, and although the man stands high amongst bee-keepers in his State, I hope there will be a stop put to all such practices.

I am—as I hope all other bee-men are—trying to put my bee-product on the market in the very best shape, and as clean as clean can be; and I think all such stories as those referred to have a tendency to make customers believe that bee-men are not very careful in putting up our honey crop for the market. Let us all work together for the good of the bee-business, for better prices, and for nice, clean honey.

W. H. E.

Prevention of Colic.

Mr. T. S. Hurley, on page 796 (1896), wishes to know what he must do to avoid colic. A lady stopt with me for a short time with two little boys. She saw my children eating all the fruit they wanted without any restrictions, and she said she dared not allow her boys to eat fruit, because it made them bilious, and gave them bilious colic, etc. My reply was: "You certainly must be mistaken, for good, ripe fruit never did, and never can, make any one bilious. In fact, it is a preventive," etc. She was positive it did, and I was just as positive it did not. Now allow me to explain:

The bile is already in the system, and eating the fruit causes it to flow into the stomach, hence the distress. Biliousness is caused by bad living and clogging up the system, either by over-eating or eating bile-producing food, more than can be thrown off naturally. By the lady cooking and living as I directed, she soon found that her boys could eat all the fruit they wanted, and colic never troubled them. Now, Mr. Hurley, think the matter over.

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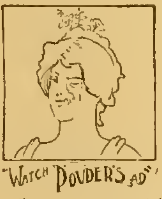

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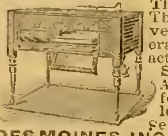

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HONEY and BEESWAX

MARKET QUOTATIONS.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

NO. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

Chicago, Ill., Jan. 7.—Fancy white, 12@13c.; No. 1, 11c.; fancy amber, 9@10c.; No. 1, 8c.; fancy dark, 8@9c.; No. 1, 7@8c. Extracted, white, 5@7c.; amber, 5@6c.; dark, 4½c. Beeswax, 26c.

Comb honey sales are of small volume.

Philadelphia, Pa., Dec. 31.—Fancy white comb, 13-14c.; No. 1 white, 11-12c.; fancy amber, 10-11c.; dark, 8-9c. Extracted, white, 6-8c.; amber, 4-5c.; dark, 3-4c. Beeswax, 26c.

Comb honey arriving freely and market overstocked at present.

Albany, N. Y., Dec. 31.—Fancy white, 12-13c.; No. 1, 11-12c.; fancy amber, 9-10c.; No. 1 dark, 8-9c. Extracted, white, 6-7c.; dark, 4-5c.

The receipts of both comb and extracted honey are very large, and prices are somewhat lower. We have an ample stock of all styles except paper cartons weighing less than a pound.

Indianapolis, Ind., Dec. 31.—Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Kansas City, Mo., Dec. 31.—Fancy white comb, 15c.; No. 1 white, 13@14c.; fancy amber, 12-13c.; No. 1 amber, 11-12c.; fancy dark, 10-11c.; No. 1, 8-10c. Extracted, white, 6-6½c.; amber, 5-5½c.; dark, 4-4½c. Beeswax, 22-25c.

Boston, Mass., Dec. 31.—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Milwaukee, Wis., Dec. 31.—Fancy white, 14-15c.; No. 1, 12-13c.; No. 1 amber, 8-10c. Extracted, white, 6-7c.; amber, 5-6c.; dark, 4-5c. Beeswax, 22-24c.

New crop of honey begins to come forward. The demand is very poor and quotations almost nominal. Weather is very warm and the consumption of honey is very small. Plenty of fruit, and hence the appetite is satisfied with same in preference. Later on we expect an improved demand for honey of all kinds.

Cleveland, Ohio, Dec. 31.—Fancy white, 14½@15c.; No. 1 white, 12½@13c. Extracted, white, 6@7c.; amber, 4½@5½c. Beeswax, 22@25c.

There is not very much honey in our market. Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

New York, N. Y., Dec. 31.—Fancy white, 11@12c.; fair white, 9@10c.; buckwheat, 7@8c. Extracted, white clover and basswood, 5@5½c.; California, 6c.; Southern, 50c. per gallon. Beeswax in fair demand at 26@27c.

The market is quiet and inactive. Demand light and plenty of stock on the market.

Cincinnati, Ohio, Dec. 31.—Comb honey, best white, 10@14c. Extracted, 4@6c. Demand is slow; supply is fair.

Beeswax is in fair demand at 22@25c. for good to choice yellow.

Buffalo, N. Y., Dec. 31.—Fancy and No. 1 white comb, sells well at 10 and 11c., but seldom 12c.; other grades, 8-6c., and require much urging. Extracted 4-5c.

St. Louis, Mo., Dec. 30.—Fancy white, 14c.; No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@10½c.; fancy dark, 9@9½c.; No. 1 dark, 7@8c. Extracted, white, in cans, 6@7c.; in barrels, 5@5½c.; amber, 4½@4¾c.; dark, 3½@4c. Beeswax, 26½@27c.

Baker stock of extracted honey, 4@5c; stock very scarce. Fair receipts of comb. Beeswax in good demand.

Detroit, Mich.; Dec. 31.—No. 1 white, 12-12½c.; fancy amber, 10-11c.; No. 1 amber, 9-10c.; fancy dark, 8-9c. Extracted, white, 5½-6c.; amber, 5-5½c.; dark, 4-5c. Beeswax, 24-25c.

Minneapolis, Minn., Dec. 31. — Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

San Francisco, Calif., Dec. 30.—White comb, 10-11c.; amber, 7½-9c. Extracted, white, 5½-6c.; light amber, 4¼-4¾c.; amber colored and candied, 3¾-4¼c.; dark tule, 2¾-3c.

Beeswax, fair to choice, 23-26c.

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ILLINOIS.—The annual meeting of the Illinois State Bee-Keepers' Association will be held at the State House, in Springfield, Feb. 24 and 25, 1897. The State Farmers' Institute meets the same week—including all the State live stock associations—and our Executive Committee, along with them, arranged for this date, in order that the Legislature might be in good working condition. (We all know what for.) There will be an effort made this winter to get a Pure Food Bill past, and that means bee-keepers want a hand in it, to see that the adulteration of honey shall cease FOREVER AND EVER. Two years ago we succeeded in getting an Anti-Adulteration Bill through the Senate, but it failed in the House, only for want of push. Let bee-keepers throughout the State impress upon their Representatives the importance of such a bill, and come to our meeting to refresh their minds on the subject.

Railroad rates will be no greater than a fare and a third, which will be announced later. Our programs will be issued along with the other State Associations named above. JAS. A. STONE, Sec.

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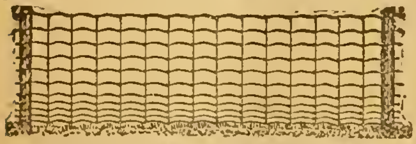

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OHIO AND PA.—The Northeastern Ohio and Northwestern Pennsylvania Bee-Keepers' Association will hold its 16th annual convention at Corry, Pa., Jan. 21 and 22, 1897. Headquarters will be at the St. Nicholas Hotel; rates reduced during the convention to $1 per day for board and lodging, to those attending the convention. Let there be a good attendance. The question-box will be a prominent feature, so bring your questions. Corry is at the intersection of the Erie and Philadelphia-Erie railroads.
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37th Year. CHICAGO, ILL., JANUARY 21, 1897. No. 3.

CONVENTION PROCEEDINGS

Proceedings of the Illinois State Bee-Keepers' Convention Held in Chicago, Nov. 18 and 19, 1896.

BY A SPECIAL BEE JOURNAL REPORTER.

[Continued from page 23.]

IS SWEET CLOVER A NOXIOUS WEED?

Mr. York—I would like to bring up a matter that Mr. Periam is interested in. I received a letter from Mrs. Harrison, of Peoria, this morning, in which she mentions "that noxious weed," and she gives Mr. Periam credit for having clast it as a noxious weed in the laws of Illinois. But bee-keepers think it is a very fine plant.

Mr. Periam—I am very much obliged to Mrs. Harrison for the good articles she used to write when I was editor of the Prairie Farmer, but in this case I must beg to be excused. It looks as if it was a healthy weed. The law now stands that it is a noxious weed? I had nothing to do with that, I think; I know I didn't, but I am willing to say this, because I am able to look dispassionately at the question. When I was editing a paper, I would not always look dispassionately, because there are so many things to be lookt after. There is no trouble with sweet clover whatever in the hands of a man who knows how to handle any kind of a weed, and everything is a weed when it is out of its place. Now sweet clover is no weed when it is in its place, but when the lines and fence-corners of the farm are full it, then it is a weed. I have always held that opinion. Mr. Chairman, if I ever said so in print, or if I ever said so out of print, I must have qualified it, that it was a weed when out of its place, and not a weed when in its place. I can illustrate that no better than to tell a story my good friend Dan Gillem once told. He was talking about clover, to the superintendent of the Fair, who said: "You need not talk to me about clover, it is a vile weed; we can't get clear of it; we can't keep it from growing:" and Dan said, "You can bless the Lord he has given you a weed which is one of the most wonderful plants the Lord ever made."

SECOND DAY.—AFTERNOON SESSION.

QUES. 17—Is sweet clover a noxious weed? If not, should bee-keepers abstain from growing sweet clover on their own land, or on leased land, in violation of statutory laws prohibiting the same? And in case legal proceedings should be brought against a bee-keeper for so doing, should it be the duty of the Bee-Keeper's Union to assist in defending any member thereof, and thereby, if possible, secure a decision from the proper courts in regard to the constitutionality of such a prohibitory statute?

Dr. Miller—Shall we take the first part of that question first? Is sweet clover a noxious weed? Who will tell us what a noxious weed is?

Mr. Ellis—A weed that is good for nothing.

Mr. York—I once heard this definition given: "A weed is a plant for which man has found no use." As soon as a use is found for it, it is no longer a weed.

Mr. Ellis—I can suggest an addition to that, by saying, that it is one that has no use in the neighborhood in which it grows, and crowds out other plants that have use.

Mr. Periam—In case of melilotus—sweet clover—it is not bad except it is in some place where it may be a nuisance. Any plant growing upon a man's land that is unlike the Canada thistle, whose seed blows around, is not noxious. Now, the melilotus is not that class of plant, because it does not blow away. It raises its seed and drops them only where they are, but if strewn indiscriminately by one man or another, or by the birds, it may become noxious to another man, or another set of men.

Dr. Miller—Speaking in general terms, would you call Canada thistle a noxious weed? Suppose I put the question, and you would not be allowed to say anything but yes or no under penalty of your life?

Mr. Periam—I answer it is.

Dr. Miller—suppose I put the same question on the same terms and ground with melilotus?

Mr. Periam—No, sir, I would not. It is not a noxious weed.

Dr. Miller—The next part of the question is: Should bee-keepers abstain from growing sweet clover on their own land, or on leased land in violation of statutory laws prohibiting the same?

Mr. Periam—The Supreme Court will decide against that, The Supreme Court will decide every time that the man has a right to grow upon his own land whatever he sees fit, so long as it does not interfere with other people; so I see no use of asking that question, for the Supreme Court will certainly decide that a man can grow anything which does not involve loss to the community at large, and that does not, unless some person sows the seed.

Mr. Kennedy—Does any one present know that there is a statute that prohibits or declares sweet clover to be a noxious weed in Illinois? I have my doubts about it. I have the laws in regard to that, but there is nothing in them that I have seen that says a word about sweet clover.

Dr. Miller—I lookt up the laws myself, and cannot find anything, but thought there might be something later.

Mr. Kennedy—I have nothing that touches on it at all, or says that it is a noxious weed. It says that the commissioners shall keep the weeds cut from the highways, but it does not mention sweet clover.

Mr. Stone—I hardly think that there is such a law, because the commissioners of highways have pretty nearly said hard words in our county about sweet clover. They have accused men of sowing it in the road, and said if they caught them at it it would go hard with them. If there was any law they would have prosecuted them, and one man got very angry at me, because I was a bee-keeper. He was a friend of mine, and threw it at me very spitefully. He said, "You bee-keepers—[with a blank]—are sowing this sweet clover," and if there had been a law, he would have applied it to the very bitterest end. If there is such a law, I would like to know it.

Mr. Baldridge—I don't think there is a law to that effect in this State, but there is one in Wisconsin, and of course this question would cover any State.

Dr. Miller—If there is nothing in the Illinois law, we are fighting a man of straw.

Mr. Baldridge—We are just now, but we will not be in a minute or two, because the members of the Bee-Keepers' Union are scattered all over the United States.

Mr. York—Before we pass to the second part of the question about the Union, I would like to read Mrs. Harrison's letter, to which I referred this forenoon. It is as follows:

SWEET CLOVER—MELILOTUS OFFICINALIS.

This is well known, and gaining in reputation as a forage-plant, and for bee-pasture. Jonathan Periam clast sweet clover as one of the noxious weeds of Illinois, and it has taken time to redeem its character.

When D. A. Jones, of Canada, attended the sessions of the North American Bee-Keepers Association, he advocated the merits of what he called "Bokhara clover," first, last and all time. Prof. Cook took a plant in his hand, that Mr. Jones brought with him, and, standing up, smilingly said: "Look at its root; its only sweet clover." So it was, but it was "melilotus officinalis"—the yellow variety. Mr. Jones had the care of nine miles of railroad, within three miles of his apiaries, and gave the seed to all of the workmen, with instruction to sow the seed wherever the soil was broken or a brush-pile was burned.

While at a sea-side resort in Connecticut, one of our party returned from a ramble with a branch of this plant in his hand, saying, "While I was away, I went through a field of this so thick that I could scarcely get through it, and I never saw so many bees in my life, upon any plant." I gathered some seed from plants growing upon the borders of a salt marsh, and brought them home, and scattered them, but they did not grow. I gathered the seed as it ripened, and put it into a little sack and it must have heated. I gathered the seed of the white variety in the same way, and it failed to grow. I infer that this seed should be well dried to germinate.

I've been watching this yellow variety of sweet clover with much interest, where it flourishes on a dumping ground in this city, Peoria, Ill. While the white variety attains the height of three to six feet, the yellow is only from two to three. It blossoms a month earlier than the white, and is more profuse, looking like a yellow sea. The stalks are finer, the leaflets more blunt, and it makes much finer hay than the white, and is a greater favorite with the bees. MRS. L. HARRISON.

Mr. Baldridge—The bee-keepers in Wisconsin dare not sow sweet clover because afraid of being prosecuted. Suppose a man wants to sow five or ten acres, he does not need to commence an action in order to obtain a decision through the courts. He can go on and sow that clover. He thinks he has a right to, and a constitutional right, too, and the authorities say, "Here, you shall not do that; if you do, we will prosecute you!" That is the state of affairs there today. Now the question is, shall the Bee-Keeper's Union defend him, or shall he defend himself alone?

Mr. Ellis—It seems to me that this should be lookt on as the life insurance companies are. In such company, if a man dies they pay his beneficiary so many thousand dollars. Now, it seems to me, that is co-operation. This is a general question, that is, that whatever is of general interest the rest should rally to that point, and defend or prosecute as the case may be. It seems to me, this comes right in line with those general duties which the bee-keepers owe to each other.

Mr. York—Of course, this State association can only recommend to the Bee-Keeper's Union. Only members of the Union can claim assistance from it. It may be that only one-fourth of our members are now members of the Bee-Keeper's Union, so all that we can do is to simply recommend that the Union defend such cases whenever brought before it. I certainly think it is a legitimate work for the Union. It is a matter that all are interested in, and I find from the correspondents of the Bee Journal, that sweet clover is becoming more and more useful as a forage-plant. In fact, in the next number will be an article on this subject. It interests bee-keepers especially, as it is such a grand honey-plant, and from what I know, it is not noxious, but the legislatures that pass such laws are, themselves, pretty "noxious," methinks.

☞ It was decided that the Bee-Keepers' Union be recommended to defend any of its members who are prosecuted for violating the law by sowing sweet clover.

LIGHT OR FULL-WEIGHT SECTIONS OF HONEY—WHICH?

QUES. 18—Should we encourage the production of light or full-weight sections of honey?

Dr. Miller—How many think we should encourage the production of pound sections weighing less than a pound?

Mr. Green—I object to that. Why should we call it a pound section if it weighs less than a pound?

Dr. Miller—The reason is, that the 4¼x4¼ section is called a pound section.

Mr. Green—I object to the wording of the question.

Dr. Miller—Let the question be, Shall we encourage the production of 4¼x4¼ sections of honey weighing less than a pound? Does that suit you any better?

Mr. Green—That is better.

Mr. Baldridge—Would it not be well enough to understand what is the object? If sections are to be sold by weight, should not we encourage them to be full weight? But I find that grocers prefer, generally, to sell by the section than by weight; but if it is to be sold by weight, then it would not make any difference.

Mr. Grabbe—I think that nine-tenths of the grocers will pay one cent a pound more for light sections. If the sections are heavy-weight they will pay less for them than the light-weight sections. I don't know of a grocer in the city who sells by weight. They all sell for so much per section.

Mr. Mead—How would it do to change the question and ask, Is it for our interest as bee-keepers to produce sections weighing less than a pound?

Mr. Stone—I believe that there is the possibility of one of the greatest kinds of evils from bee-keepers allowing anything short of a pound to go on the market. Just as has been said here, everybody has found that to be the case that the grocers grab at the light sections, and they want to pay you by the pound, and the more sections there are in the case, the better they like it. It is doing the very thing that we are trying to avoid, that is, putting the finest apples on the top. If the grocers are disposed that way, they will get to be more disposed that way, and the bee-keepers had just as well start the thing right and keep it that way, as to allow it to get into all the other evils.

Mr. Kennedy—I beg to endorse that statement.

Mr. Green—I don't look at the matter altogether in that light. I have had considerable experience in selling honey, and I have always found, just as Mr. Grabbe has said, that the grocers prefer to sell them by the piece.

Mr. Stone—What hurts us is, that they sell them for "pound" sections.

Mr. Green—I think not in all cases. In a great many cases they state distinctly they are not pounds. I will tell you why I want them light-weight sections: Because the 4¼x4¼ we know is a very convenient size for the bee-hive we have in use. The only way we can increase the weight is by increasing the width of the sections, and I am convinced that I cannot get as nice, or as good honey, and I cannot get sections as uniform in weight by increasing the width. The ¾ inch section I can get to run almost uniform, but you increase the width of the section and they will vary very considerably.

Dr. Miller—There is that point now that brother Green makes, that has some bearing on the case, that the lighter sections can be more uniform in weight. That is a point worth considering. Now, Mr. Stone wants sections to weigh a full pound. I am in favor of very light sections. I want them to weigh very much less than a pound, and I want it for the same reason that he wants them to weigh a full pound. What I produce I sell by weight and grocers sell it by the section. They want it to weigh less than a pound, so they can get the price of a pound.

Mr. Stone—That is deception.

Dr. Miller—You and I are trying to come at it in different ways. You want them always to weigh an even pound, so they cannot deceive, but you cannot get them. I want them to weigh so light that it will be *impossible* for the customers *to suppose* that they are getting a full pound. If I get them down light enough they cannot palm them off for a pound. I formerly felt as Mr. Stone does, but if I can get them down light enough then they cannot be sold for a pound. I am inclined to think that we get just as much honey by making sections narrower.

Mr. Green—I think we can get more.

Dr. Miller—It is a good point that you can more nearly get uniform weight with a narrow than a wide section.

Mr. Grabbe—I was in a fancy grocery here, day before yesterday, when a customer came in, and said, "How much a pound is that honey?" and the grocer replied, "18 cents a section." They don't sell it by the pound.

Mr. Affolter—What size sections would you use to make the sections so small that they would not take them for a pound?

Dr. Miller—I would have 4¼, and as to width, I don't know just what. I use them about seven to the foot. I don't believe they can keep on selling seven to the foot for a pound.

Mr. Green—The seven to the foot section of honey generally weighs ¾ of a pound.

Mr. Stone—Would the bees work as readily with such narrow sections with separators? Did you ever try to put separators alternately?

Dr. Miller—I have.

Mr. Stone—Don't they work better that way?

Dr. Miller—There is not much difference.

Mr. Mead—It would be an eighth of an inch wide. I believe that every section should weigh as nearly a pound as possible, and I have been experimenting considerable on that question. While I fully agree with everybody that says you can get a more even comb with a section 1½ than you can with a 2 inch section, I have been figuring it over, and I find that a section 4¼ by 6 inches long, by 1½ inches wide, fills the exact requirements. It doesn't vary enough to say so, to being an even pound. I have made up a few hundred, and put them crosswise of the eight-frame hive super, and lengthwise of the 10-frame hive. They require very little wedging, and they will not interfere with the supers now in use. Mr. Grabbe says that when the gentleman asked "How much is that a pound?" he was told 18 cents a section. He didn't lie about that being a pound, but still the inference that man would have would be that there was a pound of honey in the section. I think for our own interest we should place sections on the market that weigh a pound, or else cut enough below that so there would be no possibility of their being taken for a pound. At the same time, the cost of handling and the cost of the sections will be just that much more. 1½-inch sections should have separators at both sides of it to weigh just exactly a pound.

GETTING BEES TO WORK IN SECTIONS.

QUES. 19—What is the best way to get bees to work in sections?

Mr. Mead—I find nothing equal to a wide frame, full of sections, put in the lower story of the hive just as soon as honey begins to come in at all, and as soon as they get partly filled, and the honey comes in, I put in more frames. Then I alternate the partly-filled sections with sections of full-sheet starters in the super.

Dr. Miller—Do you get your sections started in the brood-chamber?

Mr. Mead—In the brood-chamber in wide frames holding eight sections each. I find if you have separators very wide and not perforated, that they don't start readily in the wide frames. I have been boring ⅜-inch holes through the separators, leaving ¼-inch spaces at the top and bottom, and placing those on the outside of the hive with a frame of sealed brood, and in that way they get started very quickly.

Dr. Miller—Is there any objection to having the sections put in the brood-chamber to get started? or is there a better way?

Mr. Grabbe—I always had the best success in keeping the colonies boiling over with bees.

Dr. Miller—One objection to Mr. Mead's way would be the amount of work in it, and the thing must be watched, or there is a possibility of your getting brood in the sections of honey.

Mr. Mead—I keep brood and good honey next to the sections, and I find no trouble about keeping the queen out of it, especially as I use two-story hives, either eight or ten frames.

Mr. Baldridge—I want to call the attention of all of you to a plan of compelling bees to go into the sections at will, when you want comb honey.

Dr. Miller—Their will or yours?

Mr. Baldridge—Mine. I can get them into the sections if the colony is of the proper strength, and have them in very my sections all at once and without very much trouble. When the combs are sealed at the top in the brood-chamber, if you will mash these cells at the top of the brood-frames, scarify them with a table fork, shut up the hive, put the sections on, and then rap on the hive, you can fill these sections full of bees; do this just before dusk, and if you don't find the bees nicely at work there the next morning, you will find something different from what I ever found. Of course, it must be during the honey-flow. It is a practice that I have never seen anybody practice but myself and one or two others, but there is no trouble to persuade any colony of bees of proper strength to work in the section, but do it by rapping on the hive and driving them up. They fill themselves with honey and go up there and work. You have scarified perhaps enough cells so that they have no cells except these to put the honey in. The honey will have to be taken out by the bees, and it is a forcing process, as you might say, but it secures the result.

Dr. Miller—What is the objection to putting a bait section in the super? That would be a great deal less trouble.

Mr. Baldridge—I should do it any way; even if I had a set of sections all drawn out, I should in that case scarify. You can have almost every drop of honey taken out of the brood-chamber at will.

Dr. Miller—And then will the bees refrain from putting any more honey back in there?

Mr. Baldridge—I have had sections with the combs full drawn out, filled with honey almost in 24 hours. Anybody can secure the same result.

Dr. Miller—I think there is no doubt about it, but I very much doubt if you would have any more honey in the supers in the long run, because you make them empty out the honey they would otherwise leave there, and when they do that job of filling up they will fill up the brood-combs again.

Mr. Baldridge—This honey they carry up is ripened honey, and if they have plenty of room they won't leave much in the brood-chamber. I am not in the business of producing comb honey, but that is the plan I pursued for years and years. Ten years ago we were practicing that.

Mr. Grabbe—You wouldn't do it unless the honey in the combs was white.

Mr. York—I notice in foreign papers that they recommend smearing the brood-combs or foundation with honey in order to get the bees to work on them quickly. Perhaps that would do to use in the sections—smear the starters with honey before putting them in.

APIARIAN REPRESENTATIVES FOR FARMERS' INSTITUTES.

Mr. Stone—There is one thing I want to bring up, and I am afraid the time will pass before I get to it. The State Farmers' Institute has appointed a director for each Congressional District of the State, and it is suggested that we have a representative in connection with them. Now, we have here the names of all of these directors, one of each district. It begins with the 8th and goes clear through the 22 districts of the State. We propose to have a bee-keeper appointed in every district in the State to work along with these directors in the interest of the bee-keepers in the Farmers' Institutes, and I will suggest that this meeting appoint, as far as they know and can recommend, a bee-keeper that they wish to represent them to work in connection with these directors of the congressional districts. If Dr. Miller will call the name of the director and the district, they can be named at this meeting.

Dr. Miller—If there is no objection to this, I will name the counties in each district so you will know in what district you are, and then give you the name of the director, or would you like to have the man named here for the purpose?

Mr. Stone—We would like to have the man named that they wish to assist that director.

The following were chosen: 8th district, Dr. Miller; 9th S. H. Herrick; 10th, C. H. Dibbern; 11th, J. A. Green; 12th, C. Schrier; 14th, Mrs. L. Harrison; 15th, C. P. Dadant; 16th, W. J. Finch, Jr.; 17th, Jas. A. Stone; 21st, E. T. Flanagan.

Mr. Stone—If it is the desire of the convention Mr. York and I can supply the names for those omitted.

Dr. Miller—If there is no objection, Messrs. Stone and York will be authorized to suggest names for those not named now.

DRAWN OR PARTLY DRAWN COMBS.

QUES. 20—What about the importance of drawn, or partly drawn combs, in the sections?

Dr. Miller—Is there an advantage in having combs partly drawn, or having deeper foundation made? There was some talk at the Lincoln convention, that there might be a foundation made with deeper side-walls. This question bears in that direction, as to the advantage of having anything of the kind. Is there any advantage in it over the ordinary foundation?

Mr. Green—The difficulty of that high-wall foundation would be that there will be too much wax in it to suit the average customer.

Dr. Miller—That won't meet the full question. The question here is, whether there is any advantage in drawn or partly-drawn combs?

Mr. Green—If you would say freshly-drawn combs, I would say yes, there is a great advantage; but if you mean sections left over from the last year, I think the fewer we use the better.

Mr. York—This question was brought up at the Lincoln convention, and it was said there that certain manufacturers were about able to make the drawn combs the same weight, or even lighter, than the natural comb; so I think Mr. Green's objection would hardly hold. I have read in the Bee Journal that some bee-keepers had been using drawn combs for years. There is a representative of the Fox river bee-keepers here—Mr. Baldridge—who perhaps can enlighten us!

Mr. Baldridge—I don't think you need any description of the machine. It has wings. The idea I intended to convey was this, it has been a practice there to a certain extent. They used light-brood foundation, that is, for surplus honey, and had the foundation drawn out in full sheets.

Dr. Miller—In the brood-chamber, or above?

Mr. Baldridge—Sometimes above and sometimes below—

that depends upon where you can have them drawn the best, and also upon the style of hive you were using. If you were using a hive with the long chamber, you could draw out at one side of the hive, and still the queen and bee-bread would not get into it. It would take 12 or 15 short frames, and at one end you could have these combs drawn out. But in the shallow hives they can be drawn out in the top story in full sheets; not put in frames at all, simply fasten to top-bars and the bees will draw them out as readily as they will full sheets. After they are drawn out partly (and it is not best to have them drawn out too much) cut them up in correct shape and put into the sections. That has been practiced to a great extent. You can have them drawn out as needed, or you can have a full set drawn out for each colony the previous year, in the fall, when feeding bees for winter on sugar syrup—you thus kill two birds with one stone—you have the foundation drawn out and the syrup stored. The next season a set of these are given to each colony. The sections are perfectly clean, of course, because it is not necessary to cut them up and put them into sections until you want to use them. You can leave them in full sheets and in that way you can secure a large amount of comb honey. The parties who originated this idea, and probably practiced it to a greater extent than any other in the United States, if not in the world, claim they could get as many pounds of comb honey in that way as could be obtained of extracted, provided that the bee-keepers would allow their extracted to be sealed before it was extracted. Now, I have given you an outline and you can work it out at your leisure, if you wish.

Dr. Miller—That was practiced a good deal longer than 12 years ago.

Mr. Green—I used to practice that method considerable myself, and I think now that if I want to get the greatest possible yield of honey from a colony, I would do that yet. It is not necessary, as Mr. Baldridge says, to have the foundation drawn out very deep, but just so the bees make a start on it; they will go right to work. Put a few of these combs freshly-drawn in the supers, and the bees will go up there and work on it.

The convention then adjourned to meet in Springfield, Feb. 24 and 25, 1897.

Contributed Articles

THE NATIONAL BEE-KEEPERS' UNION.

General Manager's 12th Annual Report, for the Year 1896.

BEES SPOTTING CLOTHES.

One of the first cases of trouble for the year 1896 is from Durand, Ills., where Thos. Gildseth was persecuted by a jealous and meddlesome neighbor for keeping bees—claiming that the bees spotted drying clothes hung on the line. A petition was circulated asking the Board of Trustees to prohibit bee-keeping in the corporate limits. Mr. G. was much annoyed and appealed to the Union for help to frustrate their plans. The General Manager instructed an efficient attorney to attend the meeting of the Board to show the Trustees what the results would be the if the ordinance was passed. Copies of the decision of the Supreme Court were freely distributed among the officials, and that ended the trouble.

DAMAGE TO RAISIN CROP.

In Riverside, Calif., A. F. Unterkircher was in trouble because a neighbor claimed that his bees damaged his raisins to the amount of $100. It appears that there are ten or twelve apiaries near, but he chose to make the demand for damages of Mr. Unterkircher. Being a member of the Union he naturally appealed to it for defense. The Manager took the matter in hand; sent him the Union "leaflet" on "Honey and Flowers," showing that bees are wrongfully charged with damage to fruit, and had them distributed to enlighten the fruit-growers on that subject, gave the necessary instructions and now awaits the suit. Mr. Unterkircher wrote on Dec. 19 as follows: "I assure you it is very nice to be a member of the Union. Simply a suggestion of the fact brings the prejudiced neighbors to silence. May the Union prosper."

SWEET CLOVER AS A WEED.

Dr. H. Besse, one of the old friends of the Union in Ohio, had planted a three-acre field of sweet clover for pasturage for his bees. Last July it was growing finely, two of the Township Trustees came there with two other men and cut it all down. "It was," writes Dr. Besse, "growing on the richest and best land on the farm, and was of very large growth, and would have been in bloom until frost. My bees had just commenced working in my sections. I have lost the use of my land, the seed that I sowed, and the honey crop as well. Also had to pay the officers $27.20 as fees. Is this not pretty tough treatment in a free country?" The Doctor is 73 years of age, and was greatly incensed at this treatment. The case was submitted to the Advisory Board and it was decided to test the law.

It is one of the duties of the Union to force correct constructions of law. A law calling wheat a weed, would clearly be invalid, because unconstitutional, and if sweet clover is raised as forage for bees or cattle (both domestic animals), is it not equally invalid? Such an outrageous law ought to be tested.

This matter is now under consideration, and the Union will seek redress through its attorney. We understand that the amended law in Ohio does not include sweet clover in the list of weeds. Then it is a case of mal-administration through ignorance.

In Wisconsin the law clearly includes it, and C. H. Stordock was notified last June to cut what there was of it on his land as well as on the adjoining highways. This laws must be amended, for it is unreasonable and unjust.

UNLAWFUL PURSUIT.

In Marine, Ills., M. Hettel has an apiary, and the Village Trustees were requested to pass an ordinance to prohibit the keeping of bees therein. Their attorney drafted such an ordinance and it was placed on its passage. Meantime Mr. Hettel appealed to the Union and the Manager took the matter in hand, dosed the village officers and attorney with Supreme Court documents, and directed the course to be pursued.

It was really amusing to read in the ordinance that the bees were to be confined to the owner's premises—averring that they punctured fruit, etc. Of course the ordinance, when its incongruities were exposed and the impossibility of enforcing it was shown, was too dead to pass, and was accordingly buried.

Mr. Hettel under date of Dec. 8, wrote as follows: "Now, Mr. Newman, this is entirely due to the influence of the National Bee-Keepers' Union, for had I not been a member of it, my bees would have to 'get,' the same as did those in some of our neighboring towns, whose owners did not belong to the Union. It was thought because it was so easy to make those parties leave, they could do the same to me; but when they discovered that I was backed by the Union and that there would be a big lawsuit about it, they got scared and did the best they could to get out of it. By this, *another victory* has been won for the Union, and permit me to express my sincere thanks for your kind aid in the matter."

In Los Angeles, Cal., a provision in the City Charter prohibits the keeping of bees within the city limits, with a heavy penalty attached. One of our members residing there was notified to remove his bees. He talked it over with other bee-keepers, and Mr. G. W. Brodbeck wrote as follows:

"In conversing with Prof. Cook, a short time since, on a plan of procedure in opposition to this provision of the City Charter, he stated that after consultation with an attorney he had decided that the only conclusive plan would be for the Union to make a test case of it. This subject of making bee-keeping prohibitive here in California, is not only confined to this city but has been agitated in some of the various rural districts, and unless the Union does some effective work out here in defense of this industry, the results will not only be disastrous to the bee-keeping fraternity, but the Union will lose its prestige."

One locality near Los Angeles, (where bees are kept by members of the Union) has been annexed to the city, and the charter prohibiting bee-keeping now applies to that locality also. The Union has been appealed to, in this case, to protect the rights of its members, and all are awaiting developments, when a case involving the constitutionality of the City Charter may become necessary.

MINOR TROUBLES.

In New Mexico, William H. Thorpe anticipated trouble by the city authorities prohibiting the keeping of bees within its limits, and appealed to the Union for instructions how to proceed to prevent trouble. The Manager gave him the instructions, sent him copies of the Supreme Court decision and the conflict was averted.

In Stratford, Ont., trouble was brewing, but copies of the Supreme Court decision promptly annihilated it—by the assistance of Mr. Gemmill, one of our members, but who was not the party to be injured. This shows the moral effect of a strong organization like the Union, which not only defends its members, but also averts calamities threatening the pursuit.

J. C. McCubbin, in Fresno county, Cal., had his bees molested unlawfully by a warrant from a Justice of the Peace, on a debt from a former owner, and appealed to the Union for counsel. This matter is still unsettled; but the Justice was either not posted or wrongly informed. The Union is in duty bound to defend its members in their legal rights, and Mr. McCubbin does not appeal to the Union in vain.

In Clarinda, Iowa, the City Council has been petitioned to pass an ordinance prohibiting the keeping of bees within its corporate limits. The Union has forwarded to the Mayor, City Attorney, and each member of the City Council, copies of the "Decision of the Supreme Court," on the point at issue. That document will set the matter to rest, in all probability. Should it not, then the attorney for the Union will be prepared to "fight it to a finish."

TROUBLE WITH COMMISSION-MEN.

Last February we had a complaint about a car-load of honey shipt from Perris, Cal., to Chicago. It was extracted honey and some of it was shipt in cans which had been used before for coal-oil. Though thoroughly cleaned with gasoline, the honey was considerably tainted. A dispute arose and the Manager of the Union was appealed to by both sides to examine the honey. He did so and reported what he found. Some of the honey which had been sold was returned to the commission house, as useless. The Manager of the Union suggested that it could be used for making printers' rollers, and then no loss would be sustained, as he had sold tons of it for that purpose in years past.

This matter involved much correspondence and consumed considerable time. But not having heard anything of it for six months we presume it was satisfactorily arranged some time ago.

HORRIE & CO.

Among the first complaints received about the unsatisfactory transactions of the notorious merchants of Chicago, was one from C. F. Lang, La Crosse, Wis. After much time had been spent in finding Horrie, arguing the case and finally threatening to bring suit, I received an offer to compromise the account, from Horrie; sent it to Mr. Lang, who accepted the offer, and then I secured a check for the amount and sent it to Mr. Lang, closing that matter up satisfactorily. Horrie & Co., it seems, would sell the honey for anything offered, because they were not posted about the honey trade, and as they got their commission anyhow, the bee-keepers were the sufferers by their honey being sacrificed.

Another complaint against Horrie & Co. was from Edw. Smith, Madison county, Ills., for comb-honey shipt to them. They claimed that the honey was unsatisfactory, and after repeatedly calling on them and demanding a settlement or the return of honey to the shipper, it was so returned and I have the shipping receipt on file. Of course it was not properly prepared for shipping (for they appeared not to know how to do that) and Mr. Smith had to pay freight and cartage, but had it remained much longer he would have lost the honey as well.

Still another complaint came on Jan. 16, from J. G. Stewart, Las Cruces, N. M., who shipt them a car-load of honey in October, but could get no returns. I labored with them, and they promist to make out a statement of sales and send a check to balance, which they did on Jan. 21, but of course the statement was not satisfactory to the shipper, the expense and the prices sold at, being too low.

I tried to get Horrie to review his statement, and send more money to the shipper, but he positively refused to do so. As the laws give the right to the commission-man to sell produce at any price in his judgment fair, the condition and quality being taken into account, it would be useless to sue for an advance of price on a transaction closed.

Bee-keepers should be aware of dealers of no reputation, who quote high figures to induce shipments, and then make no adequate returns.

ARREST AND COUNTER ARREST.

One of the most distressing circumstances being the case of our old friend, C. Theilmann, of Wabasha county, Minn., one of the oldest and best-known bee-keepers in Minnesota, and is considered a shrewd business man, but he is very impulsive, as the sequel shows. He sold 11,000 pounds of honey to Bartling & Co., of Chicago, for cash; they were to pay at once. He had shipt them honey before and was well treated. This time he did not get his money and then went to Chicago to see about it. He found that the honey had been all sold for less than they had agreed to pay him and he only got $250. He sued them for embezzlement, in order to get the balance, but the case was dismist. Bartling then sued Theilmann for $10,000 damages for malicious arrest, and stealing a valuable paper—the statement of sales Bartling furnished him.

The Union was then appealed to, but as Mr. Theilmann had sued Mr. Bartling and been sued in return, it was not deemed wise for the Union to interfere in such a complicated matter—the result of too hasty action on both sides, perhaps. The questions then were "embezzlement" and "stealing a valuable paper"—neither of which being the *real* issue.

I wrote to Mr. Theilmann's attorneys to watch the case thoroughly, and use the influence of the Union to get a settlement of the claim, and to see that he is protected in his rights, personally and financially.

DISPUTE ABOUT RATE OF COMMISSION.

S. T. Fish & Co., of Chicago, a large commission house, received considerable honey from Wildomar, Cal., on agreements made by J. C. Souther, who claimed to be their Pacific Coast manager, and was located at San Jose, Cal. He agreed to sell the honey on 5 per cent. commission. When settling for the honey, they deducted 10 per cent. as commission. As Manager of the Union I made a demand on them for the overcharge, amounting to $217.72. They declined to pay it, repudiating Mr. Souther's agreement. However, I think they will settle the claim as soon as they have all the facts in the case, which I have lately forwarded to them. S. T. Fish & Co. are good for their contracts, and I do not see how they can repudiate the written agreements of a former employe. It is evidently a misunderstanding between the house and Mr. Souther, for which however, honey-producers are not responsible.

FINANCIAL STATEMENT.

Balance as per last Report	$771.61
Fees from 38 members	38.00
	$809.61
Expenses, attorney fees, printing, postage, etc.	$268.40
Balance on hand	$541.21

THOMAS G. NEWMAN, *General Manager.*

The Fight Against Commission Frauds and the Honey-Adulterators.

BY VAN ALLEN & WILLIAMS.

EDITOR YORK:—We were highly pleased at the stand taken by the North American Bee-Keepers' Association at the Lincoln meeting in regard to that growing evil—ADULTERATION. When we read your paper, we exclaimed, "Good! Score one for York!" and we wish to say, Score another for him for the fight he is carrying on against the commission sharks, even though he was the cause of one man in these parts getting roped in $30 by his advertising for the firm; which shows the confidence reposed in the "Old Reliable" and its editor. But you have been forgiven that mistake, for you have proven by your good works since, that you were innocent, and our confidence is more firmly establisht than ever.

There seems to be a regular ring of those commission sharks and swindlers—in fact, a regular combination. As soon as the commission shark makes returns—if they *ever do*—it will be a fourth or fifth of what the produce brought. The mail that brings the returns to the shipper also brings a long type-written letter from a "large-hearted" individual who signs himself "Joseph Kipley, ex-Assistant Superintendent of Police of Chicago;" and gives a long list of references, including State and City officials, and winding up with John V. Farwell & Co. The letter goes on to say that while there are many firms doing an honorable commission business, it is a deplorable fact that every large city is infested by a set of commission sharks that are constantly preying upon the shippers of produce, and having become so bold and numerous in Chicago, they had formed what was called "The Shippers' Protective Association," for the protection of country shippers, and that Mr. Kipley is Superintendent of the

Association; that his whole time is taken up with the affairs of the Association, and looking after the interests of the members who have claims against commission-men; and that they have a strong "Law Department," where such claims are vigorously prosecuted. Further, that if the recipient is a shipper of produce, or had any claim against commission-men, it would be to his advantage to join the Association at once. It goes on to enumerate the great benefits to be derived from such action, and, further, that claims of members were prosecuted free of charge, if they were not successful in collecting the same, but if they were successful, they made a charge of 10 per cent., and that all the recipient would need to do to join the Association would be to fill out the "enclosed blank and return it with the small sum of $5.00," and then reap the benefits enumerated above, which would amount to many times $5.00 during the year!

The printed address on the envelope enclosed was "New York Life Building, Chicago," altho some were marked "Marine Building."

I think this Kipley should be exposed, and a war of extermination waged against all such as Horrie, Wheadon, Kipley & Co.

In your war against the above class, and in trying to secure the passage of a law for the prosecution of adulterators of honey, etc., remember that you have the whole host of bee-keepers to back you up in your noble efforts.

Crawford Co., Wis.

[This is the first we have heard of the "Shippers' Protective Association," and after some investigation we find that it appears to be a scheme backt by crooked commission men, and that it is not endorsed by the responsible dealers. If they were sincerely trying to see that commission sharks are dealt with in the manner they deserve, and that shippers get what is due them, we would feel like helping the Protective Association along rather than to denounce them.

We are glad to be assured that all the bee-keepers are ready to "back us up" in our fight against the honey dealing and glucosing frauds that are ever at their miserable work. We have a great deal of faith in what the United States Bee-Keepers' Union can do along these lines, when it gets down to business. We hope it will soon have an opportunity to illustrate its power for good among bee-keepers.—EDITOR.]

Poisonous Honey—Bee-Keeping Experts, Etc.

BY ADRIAN GETAZ.

Some days ago I had a visit from one of our prominent bee-keepers—Mr. Wm. Webb, of Sutton, who was also a few years ago one of the American Bee Journal's correspondents. During the conversation the subject of poisonous honey came up. He told me that he had some this year, and that on reading the bee-papers he resolved to make an experiment with it. So he called in all the neighbors and gave them all they would eat. (I suppose they knew what the honey was, but I forgot to ask Mr. Webb whether he told them or not.)

Well, the majority of the experimenters became sick, but as soon as they felt ill, they vomited, which relieved them, and thus ended the "experiment."

One, however, did not vomit, and was for a time really "sick for good." Aside from the usual symptoms which accompany a common indigestion, there was a partial blindness and a numb feeling in the skin, which are characteristic of poisoning by the cyanic compounds contained in the different species of wild laurels (kalmias).

There are plenty of wild laurels in all the Alleghany mountains, but poisonous honey is not often met, and where it is met with, it is only once in a few years. By what I have learned from different persons, it seems that the nectar is gathered from the laurels only where and when nothing else can be had. That explains the contradictory reports received.

EXPERTNESS REQUIRED IN BEE-KEEPING.

The old readers of the American Bee Journal remember Mr. Sam Wilson, also one of the old writers for the paper. Mr. Webb has just bought Mr. Wilson's apiary—bees, hives, foot-power saw, and all. Upon inquiry I was informed that Mr. Wilson sold his bees because he has too much other business to attend to. I asked Mr. Webb if it was because his bees had not paid him; but he answered in the negative. In fact, it is the other way. Mr. Wilson began his career years ago, with nothing, or next to nothing. Bee-keeping was his first venture, and the money he has made out of it enabled him to start his other business.

This is not an uncommon occurrence. Many of our friends who went to California, made money out of their bees, and then sold out and went into other business. The fact is, that bee-keeping cannot be carried on, on a very large scale, because the owner has to do all the work. In other lines, you can increase your business almost indefinitely because you can hire all the help you need. But in bee-keeping you cannot find competent help. Picking out good men and training them has been tried again and again, but invariably with the same result. As soon as your "trained helpers" are up to the scratch, they start into business for themselves, and all that you get for your trouble is a crop of competitors.

Bear in mind that when I say that the apiarist must do the work himself, I do not mean absolutely all the work. Scraping sections, putting in foundation, turning the extractor crank, etc., and even selling the honey, can be done by helpers, and the apiarist reserve for himself what work must be done by an expert in handling bees.

DIRECTIONS FOR INTRODUCING QUEENS.

Some time ago a bee-keeper wrote that the instructions sent by the queen-breeders for introducing were wrong, and that the proper way to do was to put the cage (with the queen in it) in the hive, and after two or three days remove the old queen and release the new one. All I have to say is, Don't you do any such thing at all! No sooner does the old queen find the caged queen than she will attempt to kill her, and finding she cannot do it, she will get more and more excited and enraged, and unless the weather and other circumstances are quite adverse, she will be sure to swarm. If she does not, the probabilities are that when the new queen is releast, the bees, being more or less excited yet, will ball her.

Not long ago a German bee-keeper proposed that very thing to make the bees swarm—that is, hanging a caged queen in the hive.

A few years ago I had several queens and queen-cells in West cages, all in one hive. By some mishap a queen got out, and swarming was the result; yet it was not swarming-time, the colony was small, there was plenty of empty comb—in fact, all the circumstances were against swarming, yet they went to the woods.

APIS DORSATA AND THE ENGLISH SPARROW.

While I am criticising what other people say, I want to put in a word for Apis dorsata, or rather for the English sparrow. I do not see how the introduction of Apis dorsata could be a damage to anything or any one; and I am not at all sure that we are to repent of the introduction of the sparrow. The only objection made is that the sparrow has driven out other birds, but nobody has proved yet that it is so. True, the other birds have disappeared more or less, but other causes may have caused their disappearance, and we might not have a single bird more, even if the sparrow had not been introduced. And, in fact, the insects and other pests which damage our fruits and vegetables are on the increase, and, after all, what we need seems to be the introduction of a few more kinds of "sparrows," rather than the destruction of the one we have.

Knox Co., Tenn.

Bee-Notes from Nebraska.

BY J. M. YOUNG.

Our bees had a good flight between Christmas and New Years.

The prospects for white clover next season were never better in this locality.

Our county fair last fall was held on the same date as the Lincoln convention. I wanted to be there to shake hands with some of the old veterans.

I am wintering 46 colonies on the summer stands; 26 of these are in my combined summer and winter chaff hive; the balance are in single-walled, 8-frame dovetailed hives.

Bees are not kept in this locality for the profit there is in them, but simply to supply the table with honey once in a while. What bees there are, are generally kept by the farmers, and usually are in some form of a movable-comb hive, but the manner of handling—"let them do as they please," is practiced to a large extent.

Bee-keeping in this part of the State for the last three or four years has been nearly a total failure as far as honey is concerned; the dry seasons nearly wiped it out, or rather dried it out. However, the season of 1896 was considerable of an improvement over former seasons, by the way of honey gathering.

In writing on bee-culture, I belong to that class of individuals who can't tell or put on paper just what they know. My experience in this pursuit extends over a period of 25 years, and now I have come to believe that bee-culture is a trade, to be learned just like any other trade, if success is the object to be attained. Cass Co., Nebr., Jan. 7.

Making Large Increase in a Poor Season.

BY DR. E. GALLUP.

I am requested to tell through the Bee Journal how I manage to make such a large increase in a poor season; also how I manage doubling up in either fall or spring. Now, if I can make myself understood when I have answered one question I have answered both.

When I practiced natural swarming, it was a very rare thing to have light swarms that needed doubling. The old saying was, that a small swarm was worthless. Well, they were, if hived in an ordinary sized hive and allowed to manage themselves; but second and third swarms almost invariably have a prolific queen. If increase is what I am working for, I consider all swarms worth saving, but if we allow any colonies to swarm more than once, we must not expect a large surplus of honey.

Now, if you have second and third swarms, hive them in the standard size hive, but use a division-board. The old colony will be so reduced in numbers that they want a division-board and contraction of the brood-nest also. Take the surplus combs from the old colony and divide with the second and third swarms. Now be sure to contract the brood-nest so the bees will be crowded into as small a space as required, for we want to control the heat and still allow for a large working-force in proportion to the mass of bees. Understand that the queen will not deposit eggs where there is not sufficient warmth to hatch and develop the brood. If we have only bees enough to fully occupy three frames, crowd them onto the three, and if when the bees are all in at night, some of them are crowded outside of the division-board so much the better. As soon as they require more room, enlarge their department by moving the division-board and inserting either an empty frame or a frame of foundation; and always insert that in the center of the brood-nest, as the queen will the sooner occupy it, for if placed at the outside she would not occupy it so soon, and then be apt to occupy it only sparingly.

Now you can understand that if we did not crowd the bees into a small space, they would be compelled to build all combs after the first two or three outside of the cluster, and the queen would not occupy it. Then, also, the bees would be compelled—so many of them—to stop at home to keep up the warmth that they could spare but a very small working or gathering force outside, consequently they are kept back on all sides.

Of course, the old colony must be built up in the same manner, and as we have young and prolific queens, every comb they build will be worker-comb. There will be no drone-comb built so long as the queen remains prolific, or the first season, providing the comb is built in the center of the brood-nest. The bees will often build drone-comb if compelled to build outside of the brood-nest, because they build it for storage purposes only.

I always get a fine lot of nice worker-combs built by the above management; and by this management they will store the same amount of honey in proportion to the number of bees as would a large, powerful colony; whereas, if we hived them as is usually done, without contracting the size of the hive to suit the number of bees, and managing as recommended above, they could only build a small amount of comb, and the queen could only breed enough to just keep up the original number of bees; and if she even did that, she would do well. There would be comparatively no honey stored, and the result—instead of a good, strong colony there would be a very feeble, worthless one, which in all probability, if we put four together, would not be wortth as much as the one rightly managed.

To the beginner: Begin on a small scale, and work up as you learn. I have explained the management so that when you have learned the practical part you will find that you have no colonies to double up. Even a colony that is reduced in spring, the hive should be reduced by the use of the division-board to suit the number of bees, and if the queen is all right you will be astonisht to see the difference, and how rapidly they can be built up in comparison to the old method. You spring dwindlers might take a hint from the above.

"Well," you may say, "your plan makes a great amount of fussing and bother." My reply is: What are we keeping bees for, if not to manage them in the best possible manner to make the most out of them, and to keep them in the best possible condition? On the above plan, and with good, prolific queens, it is a very easy matter to make increase. Two queens, if rightly managed, will deposit double the number of eggs that one can, is my motto. Orange Co., Calif.

Bee-Jottings from the Southland.

BY MRS. L. HARRISON.

While waiting a week at Mobile, Ala., for a steamer to cross the Gulf of Mexico to my present residence in Florida, I saw no honey for sale—comb or extracted. It is a port of considerable importance, claiming 35,000 inhabitants. It would be well for the producers of honey in the South to create a demand for their product in New Orleans, Mobile, Pensacola, and from the Mississippi to the Atlantic are strung along numerous towns, the winter resort of northern tourists. If they have any honey, it is shipt from Chicago, as it is to this town.

I have seen comb honey for sale in the stores here that was produced in this locality, but in very bad shape, tho beautifully white honey. It is gathered from the ti-ti. (This word should be spelled with a hyphen; it is of Indian origin, signifying tangle or thicket.) Scientifically it is known as "Cliftonia ligustrina," and thrives only in living water. Its pretty pinkish-white bloom grows in racemes, and is quite fragrant, being a great favorite with the bees, blooming in early spring.

I was very much interested in reading an article on "Comb Honey in the South," on page 802 (1896). Experience in handling and caring for honey is what we need; also the sale of the same. I had always supposed that comb honey could not be kept for any length of time in Florida; that it would gather dampness, and ooze from the comb; but localities may differ greatly in this respect.

During the past season, in this locality, a severe drouth prevailed, and most of the bees died of starvation. Further inland from the Bay they suffered less with drouth. Newly-transplanted trees that were not constantly watered, died.

Washington Co., Fla., Jan. 1.

The Weekly Budget.

Mr. G. M. Doolittle is now one of the editors of the Progressive Bee-Keeper.

Mr. Sigel Brautigam, of New Mexico, writes: "Every progressive apiarist ought to have the American Bee Journal. It is worth more than is askt for it. I am glad to see it exposing frauds, such as some commission-men and others. Success to the 'Old Reliable.'"

Mr. Andrew Girard, of Bay Co., Mich., wrote thus appreciatively when renewing his subscription:

"Mr. York:—Enclosed find $1.00 for the American Bee Journal for 1897, with many thanks to you for your kind information. Had it not been for your valuable paper, I should have been swindled out of 3,000 pounds of honey; and now, as soon as the amalgamation is completed, I will send in my dollar to help keep the swindlers down, and also adulteration."

Madam Modjeska, the Polish actress, has often been reported in the newspapers as having 600 colonies of bees on her ranch in California. But Rambler has been investigating the matter, and reports as follows in Gleanings:

"Is it not about time for that item charging Madam Modjeska with having 600 colonies of bees be stopt from swinging around among the newspapers? The following from Dr. Gallup settles the matter right: 'I have known the Madam's apiarist for a number of years. I saw the young man to-day, Oct. 7. He says she has 125 colonies, mostly pure Italians, in bad condition. The bees have been fed quite an amount, and they are soon to be moved to the valley to winter. So you now have the facts from headquarters,' says the Doctor."

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Editorial Comments.

Granulated Alfalfa Honey.—Last month we shipt five cans of beautiful alfalfa honey to a purchaser in a Western State. It was received in due time, but it seems the young man who bought it was not familiar with the fact that nearly all pure extracted honey will granulate. So he forthwith wrote us a sharp letter, intimating that we had sold him sugar that was "as hard as a brick," and that he had *tried* to sell it, but couldn't, etc.!

Of course we were surprised not a little at the ignorance displayed, and took the time to write to our young friend a long letter telling him of his mistake, and just how to liquefy the honey, when it would be all right.

Now why have we mentioned the foregoing case? Simply to show that there is a vast amount of educating that needs to be done by *bee-keepers*—those who *know* the characteristics of honey, and can intelligently explain them. It might be well to write a short article for your local newspaper, giving a few of the interesting facts about both comb and extracted honey. We believe the editors would be pleased to publish them, especially if accompanied with a good-sized sample of the genuine article to "sweeten them up a little." Don't forget the "bait" if you want to do any "fishing," though really it oughtn't to be necessary in this case, as every local editor should be *pleased* to publish anything that will be of interest to his readers.

Why not begin the campaign of honey education ere another season is here? The winter is just the time to write out what you wish to have publisht, for then you have ample leisure to do full justice to the subject.

◆

The National Bee-Keepers' Union.—The 12th Annual Report (for 1896) of the General Manager of this Union reacht our desk Jan 11. We give on page 36 what is reported as "The Work of the Year." The whole document occupies 12 pages, nearly half of it being devoted to the New Constitution and Amalgamation.

On Jan. 4, 1897, we received the following from Dr. Besse, whose sweet clover case we mentioned last week, which is also referred to in the Union's Report:

> MR. YORK:—I wrote to Mr. Newman, asking him what I should do in the case, when after some time he wrote me that my case was in the hands of the Advisory Board, and they were divided in opinion, and had come to no conclusion. Since that, my attorney has written several letters to him, but can get no reply. Now, I have been a member of the National Bee-Keepers' Union ever since its organization, and have always supported Mr. Newman for its General Manager, and I cannot help feeling sore over the treatment. I have commenced suit against the trustees, in our court, for damages, and shall prosecute it single-handed and alone.
>
> H. BESSE, M. D.

We have always held that the Union should help defend its members when they get into trouble of the kind in which Dr. Besse is now. But we cannot harmonize the General Manager's Report with the Doctor's statement as above.

Again, the recent troubles of Mr. Theilmann are mentioned in the Report on page 36. But here is what that prominent Minnesota bee-keeper says in a letter to us, written Jan. 12, 1897:

> FRIEND YORK:—With this morning's mail I received the 12th Annual Report of the Union; also voting blank. I see on my case Mr. Newman gets out very cheap, by simply saying it was not deemed wise for the Union to interfere in such a complicated matter. Is that not the very time we need assistance more than any other? We have no use for a Union when everything goes smoothly. Did I not pay in my dollars promptly ever since the Union was organized, though I never expected to get into a position to call for help from the Union? but now that I did get into trouble, I have to depend on myself, alone. It is very cheap to talk and put things in a good light on paper, but to get help when we need it most is another thing. What good to me is the money in the treasury of the Union, or to other members, if we don't get any good of it, and it is withheld by just one man saying: I do not deem it wise, etc.? If this is the construction of the constitution of the National Union, then the sooner we join the New Union the better, even if there are some faults in the New Constitution, as Mr. Newman sees them. He doesn't tell us anything of the incongruities and faults in the old constitution, because some articles which should be there are absent altogether. The old saying is: "Better a louse in the kraut (cabbage) than no meat at all."
>
> When I askt the Union for help in my case, it was nearly four weeks before I got an answer, and that was all I got.
>
> C. THEILMANN.

One would think from the foregoing letters that the old Union needed something or other in order to make it of real use to its members. It would seem that there are some "incongruities" in its constitution, or management, or somewhere about it; and as one of its humble members we think we are on the right track when we endeavor to get it to adopt a constitution that will permit it to help its paying members when they are in lawsuits in which the whole bee-fraternity are much interested.

◆

Honey for Curing Small-Pox.—Several of our readers have sent us clippings from the newspapers mentioning the cure of small-pox with honey diluted in water. Here is one of the items, having been sent out from the city of Mexico, Dec. 28, 1896:

> Experiments made with small-pox patients in Oaxaca show that by administering honey diluted in water to small-pox patients the pustules of the worst variety disappear, and the fever is immediately diminished. The matter attracts much attention. The remedy was accidentally discovered by a young girl who was down with the disease, who secretly refreshed herself with honey and water with the astonishingly curative results, and it was then tried on soldiers sick with the disease.

We shall be glad to have any corroborative reports from any of our United States physicians who have experimented in the matter.

◆

Amalgamation and "New 'Union' Scheme."—With the same mail that brought us the 12th Annual Report of the National Bee-Keepers' Union, also came the Progressive Bee-Keeper for January. In perusing its usually clean pages, we came upon the following scurrillous contribution from W. D. French, of San Diego Co., Calif.:

THAT NEW "UNION" SCHEME.

> I have just read in the American Bee Journal, on page 790, a most dastardly attack on the General Manager of the old "Union." The writer has not manhood enough to sign his name, and so calls himself "Union." The scheme no doubt is to break into the Union treasury, and appropriate the money it has accumulated for the defence of its members, in their lawful rights, and as they think that the present Manager stands in the way of their "scheme," they attempt to assassinate him—morally.
>
> After having manfully stood by the bee-keepers for 12 years, and won every case defended by the Union in the courts of the land, it is shameful to persecute him the way Mason, York, and Root are doing. It is simply contemptible.
>
> The idea that he must now be pitcht out of office at their instigation, simply because he pointed out the weakness and incompleteness of the Constitution adopted at Lincoln. Nebr., is a disgrace to bee-keepers. They cannot point to anything he has done, except to his credit, and so they make a subterfuge of the matter that he is now living in California, and not in Chicago. Do they not know that about one-fourth of the members of the present Union are located in California?
>
> *By the way, I remember that over a year ago the American Bee Journal suggested that Mr. Newman should go to California, the land of "climate and flowers," for his health and that of his family. Was it desired to get him away from Chicago for the purpose of making the present excuse?*
>
> The most cruel stab of all, is the reflection upon the honesty of the General Manager—by suggesting that the votes must be prevented from passing through his hands (as usual) to be counted by the Returning Board. It seems not to be enough to insinuate that he must not be any longer trusted with the funds of the

> Union, but also that he is not even honest enough to receive the votes and pass them over to the usual Committee to count and certify us to who is elected. The only reason that can be given for thus casting a suspicion is that he has dared to show the faultiness of the proposed Constitution. We should be glad to have him watch our interests, and it shows that he is "the right man in the right place." Let the bee-keepers see to it that their deep-laid scheme is frustrated, and let the Union go on as it has in the past, winning laurels for our pursuit.
>
> If we had no funds in the treasury, they would not be so anxious to amalgamate. Who gave them the right to copy the name, "Bee-Keepers' Union," when one by such name already existed, and was honoring it by winning lawsuits everywhere?
>
> My advice to every member of the Union is to vote against "amalgamation" at the coming election. W. D. French.

It is seldom that so much of untruth and misleading statement are stuft into so short a space. The idea of men breaking into *their own* treasury! Doesn't Mr. French know that all who are working hardest for amalgamation are members of the old Union? It would seem not, judging from his insane article above.

Then, the idea of morally assassinating the present General Manager! Yes, and persecuting him, pitching him out of office, and all such wild assertions. And this is one of the two men who has been selected "to open and count the votes, and certify the result of the election!" Usually, we believe, unbiast men are selected for such delicate positions.

But the paragraph in his article, which we have put in italics, shows the make-up of the man. How happy he will feel when we tell him that in the first or second number of Mr. Newman's Philosophical Journal (devoted to Spiritualism) issued after reaching California, he (Mr. Newman) took occasion to *thank* all of his Eastern friends who had helpt him to make the change. We admit that we were instrumental in getting some notes casht for Mr. Newman, which he said made it possible for him to leave Chicago. Besides, in the same number of his paper containing the item of "thanks," Mr. Newman said that the *spirits* had foretold, some 16 years ago, that he was to land in California just about the time he did. Oh, but that italicized paragraph is a rich joke on French! How could we but work in harmony with the spirits, though we didn't know it? Talk about diabolical insinuations, contemptible meanness, and all the other "graces" of "Old Satan"—why, they are hardly a shadow compared to the real essence of the paragraph in question.

Another joke on French is, that *we* know Mr. Newman about as well as we know any man on earth (having been in his employ for some seven years), and he (Newman) ought to know us pretty well. So any such statements as he (French) makes are not going to help him or Mr. Newman very much. And, as for us—well, we are not afraid of such "crazy shots."

While it is not necessary to say it, we want all to clearly understand that we have not intended to attack Mr. Newman in a personal way at all; but we do submit that his official acts and public utterances are legitimate things to criticise or commend, and only to such have we thought to pay attention. Also, it may as well be understood by all, that the old American Bee Journal is thoroughly fearless in asserting its views when it believes such views to be *right*; and it will do so regardless of any one in high or low position. We are here to do what we can to *help bee-keepers*, and if any man or set of men get in the way of what we feel our duty, it is not our fault. So long as we have the conviction that we are in the right, we do not propose to swerve a hair's-breadth for any one.

Having clearly set forth our intention, we wish to quote a little from the General Manager's Report that lies before us. Here is a queer paragraph, taken from the nearly four pages devoted to an attempt to defeat the adoption of the New Constitution:

> "It has been suggested that the Constitution offered as an amendment to the one on which we have been working, and on which to amalgamate, should be submitted to vote, without any remarks pro or con. But why should that be done? Only one reason can be assigned, and that is to cover up its imperfections, or get a vote before they are discovered. This would take undue advantage, and should not be thought of, for a moment. There are two sides to every question, and our members have a right to learn all about amalgamation before being expected to vote on it."

True, "There are two sides to every question, and our members have a right to learn all about amalgamation before being expected to vote on it." But why does the General Manager give only *one* side (against), and not the side favoring amalgamation? By what authority does he make such decision? and also use the Union's *money* to print *one side* of the matter? All know well enough that all of his asserted "incongruities" and "incompleteness" of the New Constitution don't amount to anything; that all the claimed "imperfections" would not interfere in the least with the successful working of the New Constitution. We have said before, and say again, that while the New Constitution is not entirely perfect, it does not contain a single thing that need alarm any one. On the part of the General Manager, it is simply a cry of "Wolf! wolf! when there is no wolf."

No one questions Mr. Newman's right to criticise the New Constitution, but we say he has no moral right to attempt to defeat the adoption of a measure that promises so much for bee-keepers, and yet claim that he does not "wish to influence one vote for or against amalgamation."

We have greatly admired the work Mr. Newman has done as General Manager of the Union, and have often said so, but we deeply regret that now, after years of efficient service, he so diametrically opposes what many leading bee-keepers believe would be for the best interest of the whole bee-industry in the United States. Ex-Candidate Wm. J. Bryan recently said: "I expect to stand or fall in public estimation according to my ideas." He put it right. So must each one of us; and Mr. Newman is no exception.

Plans of the California Exchange.—In a late review issued by the California Honey Exchange, and sent to its members, occurred the following paragraphs:

> Recent rains have given encouragement for a good honey-yield during the coming season. In prospect thereof, we have made arrangements for an early shipment of supplies. In making up the order for the carload of supplies it would aid us if members would state, as definitely as possible, at an early date, what supplies and articles they may need. If supplies made by local manufacturers are preferred, we hope to make favorable arrangements with them. In fact, we should aid as far as possible the local manufacturers, if they make supplies that give satisfaction.
>
> The new Weed process foundation will be handled exclusively by the Exchange. Bee-keepers will please advise us to what extent they wish to use this production. The price will not be above the ordinary foundation. As soon as we know about what lines of supplies are needed, a general price-list will be issued, from which a liberal discount will be given to members of the Exchange.

From the foregoing it will be seen that it will pay California bee-keepers to belong to the Exchange—it will be a saving to them when buying their supplies. Better write at once to Manager J. H. Martin, Box 152, Los Angeles, Calif., for full information as to becoming a member. He will be glad to hear from you.

Vermont Law on Spraying.—Mr. G. W. Fassett, of Vermont, has kindly sent us a copy of the law in that State, past very recently, being "An Act to prevent the use of poisonous substances upon fruit-trees in blossom." It reads as follows:

> It is hereby enacted by the General Assembly of the State of Vermont:
>
> Sec. 1.—If a person sprays or causes to be sprayed, or puts or causes to be put, any Paris green, London purple, or other poisonous substances upon fruit-trees while in blossom, he shall be fined not more than $40, and not less than $10.
>
> Sec. 2.—This Act shall take effect from its passage.
>
> Approved Nov. 20, 1896.

This is short, and to the point—just the thing that will give such necessary protection to bees, as will prevent their being destroyed while working on the fruit-bloom in the State of Vermont. Other States should enact a similar law. Fruit-growers should aid in securing such laws, for it is a well-known fact that bees are a great aid to the fullest pollination of fruit-blossoms, and thus are helpers in securing the production of larger fruit crops.

Have Bees a Conscience?—The New York Herald recently was guilty of "getting off" the following on the bees:

> "What a funny thing," said Dora, with her gurgling laugh, and she looked at David over the newspaper. "Here the London Spectator prints a long piece asking, 'Have bees a conscience?'"
>
> David lookt thoughtful.
>
> "Of course bees have a conscience," he said, his mind hastily reverting to boyhood days; "or at least they have something that stings."

Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offer on page 45.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Pay in Bees for Transferring—Pure Italians vs. Hybrids.

1. I have a neighbor who has 9 colonies of bees in box-hives; he wants me to furnish hives and do the work of transferring them, and let me take part of them for pay? How ought they to be divided?

2. Are the pure Italian bees better honey-gatherers than hybrids? W. L. S.

Answers.—1. There's no rule about it. Settle what is a fair price for the bees, a fair price for the amount of time taken at the work, then figure accordingly.

2. You'll probably find little difference between the pure stock and the first cross, providing you have good stock to start with.

Closed-Top vs. Open-Top Sections.

1. When using 8-frame dovetail hives having wood separators slotted on the bottom edge only, is it not better to use Root's No. 4 closed-top sections open on the bottom side only, thereby forming air-tight compartments which will hold the heat of the hive, and help the bees in drawing out the comb foundation? Or is it better to use open-top-and-bottom sections, which allow a drect draft from the hive-entrance to the cover, which is not always air-tight? P. O.

Answer.—So long as there is no wish to put another set of sections over, I certainly would prefer closed-tops, so that the bees could get up through. I would not, however, like to be confined to sections with closed tops, just because in the great majority of cases I want to put more than the first super on a hive. When the first super is ¾ or ⅞ filled, it would be a loss of time and money to wait till the sections were entirely filled before giving a second super; and one super cannot be put over another unless the lower one has sections open at the top, so the bees can get up through. Possibly it might work well to have the first super contain sections with closed-tops, and the second and third supers with open-topt sections.

Questions on Swarming, Bee-Stings and Bee-Supplies in California.

1. When is the time to put on sections, before swarming time, at swarming, or after they get done swarming?

2. Do you put on sections as soon as you hive a swarm, or wait until they get the brood-chamber filled?

3. Is a colony that has not swarmed for four years apt to swarm next season? or does it make any difference in its not swarming?

4. Is a colony apt to go four or five years without swarming, and then swarm the next season?

5. My little brother wanted to know whether a person could get accustomed to a bee-sting without swelling?

6. Do you know anybody in California who deals in bee-material? I want to get some, and it costs too much to get it in the East? I got five dovetail hives from Wisconsin, and the freight alone was $8.25. The hives didn't cost quarter as much as the freight. F. E. S., Yolo Co., Calif.

Answers.—1. Don't go by the swarming at all, but go by the honey harvest. If obliged to give an answer with reference to swarming, I should say before. The old rule is to put on sections when you find bits of white wax along the upper part of the brood-combs. Sections should be on just as soon as the rush of the harvest comes, and it's better to be a little before than after that time.

2. It would be all right to put on supers immediately upon hiving a swarm, only that sometimes the queen goes up and commences laying in the super. If a queen-excluder is between the hive and the super, then the super can be put on immediately. Otherwise it is well to wait a day or two until the queen has commenced laying in the brood-frames.

3. There's no rule about it, but a colony that has been in good heart for four years without offering to swarm during that time, is perhaps less likely to swarm than the average, simply because there is something about the strain of bees—perhaps aided by other conditions—that makes them less likely to swarm than other colonies. But if the four years have been so poor that bees in general did not swarm, then look out for their swarming the first good year.

4. It is not often that a good colony goes four or five years without swarming, but when such a thing does happen, there's no certainty it will not swarm the next year.

5. Some persons swell more than others, but the swelling probably makes no difference about getting hardened to stings. Whether the swelling is bad or not, almost any one will become so that stings will hurt much less, and also swell much less. The veterans think little of stings.

6. [We believe there are several bee-supply dealers in California, and we have wondered why they have not advertised their wares in the Bee Journal. It must be that they are not anxious to increase their business. Perhaps they will soon get to the advertising part.—Editor.]

Transferring Colonies from Box-Hives.

1. I want to get 100 or more colonies changed from box-hives to frame hives, and at the same time get all the comb honey possible. Since I shall have no ready-built combs to make up my colonies with, if I should wait until after the flow or even until after the first flow, how would you proceed to have these combs built out? The matter would be very simple indeed if I were running for extracted honey, but as it is I find sale for only a limited quantity and for this amount I have plenty of extracting-combs on hand. You will see that my great object is to get the full crop of honey and still make these improvements. Colorado.

Answer.—1. If you trust to natural swarms and hive your swarms in the new frame hives furnisht with foundation, the problem would solve itself and you would secure a good crop of comb honey, and at the same time end the season with your bees well establisht in frame hives. I have doubts whether in any other way you can get as much comb honey, and at the same time have the colonies transferred to frame hives. Of course the idea is to have all the strength of the colony go to the new hive. This has been explained in this department in a late number of the Bee Journal.

It is possible that I don't fully understand the case, and that by some means you want first to secure the crop of honey and then afterwards get the colony establisht in a frame hive. In that case, supposing there remains warm weather after the close of the harvest, you may profitably resort to feeding. I have had beautiful combs thus drawn out and filled by putting Miller feeders on top filled with sugar and water, or if you haven't the feeders you can use the crock-and-plate plan. You could also feed the honey taken from the box-hives which no longer were occupied by the bees.

If there is some peculiarity in the case that I don't meet, I shall be glad to have you ask further, and I'll try again.

B. Taylor's Separator and Its Use.

I have been trying over since I first read of this plan to explain to myself how Mr. B. Taylor's separator plan works. He told us that he used his separators between each two sections only. Now bearing in mind that he used narrow sections and his cleated separator, I can see how the bees would build their combs out to ⅛ inch from the edge of the section on the side where the separator is, but I cannot see why they would do so on the other side. Why would they not bulge the combs there as they do when no separators are used? Don't say that they won't bulge them when foundation is used, for mine have done so time and again. I would like to use such sections and separators the coming season, but I cannot understand the philosophy of it. And one other question on this same topic: Why would the bees build out to ⅛ inch from the edge of those sections, thus leaving a bee-space of only ¼ inch between the combs, whereas in the case of ordinary combs they will make the space greater? F. H. D.

Answer.—Beginning at the last end of your question, I think you will find that ¼ inch is the normal distance between the surfaces of the sections when no separator is between them and there is a good flow of honey. At the close of the flow, sections will be finisht up with more space between them, and this may also be the case when the flow in general is poor. Sometimes a half inch or more space may be found between two surfaces, but I think you will find that during a good flow no sealing is done till only about ¼ inch is left between the two combs. Counting then ¼ inch between two sealed surfaces, and also between a sealed surface and a separator, you will see that the ⅛ inch cleats on B. Taylor's separators will make both sides of all the sections built out to within ⅛ inch of the edge of the section.

With regard to sections being bulged or built to one side, and also with regard to sections being built true without separators, there is a good deal of difference at different times, and possibly in different places. Some have reported that they could get good, straight work done without any separators at all. I never could get such work. When the honey comes with a rush, and all the sections are being workt upon at once, the tendency is to have the sections all drawn out with equal pace, in which case fair work is done without any separators, and if separators occur in every alternate space there may be no trouble about packing the sections for shipment. But in a slack time the work will be more or less centralized, the outside sections neglected and those that are among the outer ones of those workt upon will have the side toward the center filled faster than the other side, thus making the section swing from the center unless the comb is anchored to the bottom-bar of the section. Formerly with the full complement of separators in use I had many sections bulged over against the separators; that is, the section was swung out of perpendicular, and the bottom of the comb built fast to the separator. Latterly I don't have that trouble, even during a slack flow. I suspect it is because nowadays I use bottom starters. With bottom starters and separators in alternating rows there may be but little bulging, especially during a good flow, but it may not be best for you to try it on too large a scale until you find from a few colonies what the bees will do for *you*.

How to Make Use of a Lot of Combs.

1. I have a few hives of combs on hand whose colonies became queenless last fall, and were robbed of their stores by the other colonies. Wishing to use those frames of combs for next season's swarms, they being of good quality, how can I best care for them? Can I hive the swarms on a full hive of combs, or only use one-half or a less number of combs in each hive, supplying the remainder with frames of full sheets of foundation? Also, how should they be arranged? Can I place the combs altogether, and the foundation together, or place them alternately throughout the hive? I use the 10-frame hive.

2. In forming nucleus colonies, when you use from two to three frames of brood and bees, or in hiving small swarms, where you use a division-board to contract the brood-nest, how do you arrange them for supplying the rest of the frames? Do you place them all to one side, or spread the frames and place the frames of empty combs or foundation between them. I had a little experience the past season in adding frames of foundation to hives partly filled with frames. When the bees drew out the comb, they made the cells longer on one side than on the other, consequently the combs were to one side of the center of the top-bar. What is the remedy?

C. J., Vermont.

ANSWERS.—1. Either way you mention will work all right. In fact you can hardly go amiss in using the combs for swarms. Instead of filling hives full of old combs, and thus having only a few swarms receive the benefit, it may be as well to divide your favors. Make a guess at the number of swarms you will have, then divide that by 2, and then divide your combs among that number. For example: Suppose you have 30 old combs, and you feel tolerably sure you'll have 20 swarms. Instead of figuring on 20 swarms, take the half of that and plan for 10 swarms, and that will make 3 combs for each swarm. The reason for this is that you're not sure about the number of swarms, but you want to make sure to use up all your combs. Perhaps it may be just as well to put the combs all together at one side of the hive, then fill out the rest of the hive with frames entirely filled with foundation. If foundation is put between two old combs, it sometimes happens that the bees draw out the cells of the old comb unnecessarily, and leave the old comb between them too thin.

2. It doesn't matter so much as to anything else, so you don't allow too much room for the size of the cluster. Keep them sufficiently crowded for room so that the bees will have to cover the whole of all the frames given to them. A small cluster put on a whole hive-full of frames, instead of building each comb regularly down to the bottom, will spread out sidewise and work the combs unevenly.

Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Getting Foundation Filled Out.

Query 42.—A colony is in a one-story hive. I want to give it another story filled with frames of foundation to get them filled out, having a queen-excluder between, and the queen in the empty story. In order to get the best work, shall I put the empty story below or above?—IOWA.

J. A. Green—Above.

G. M. Doolittle—Below.

P. H. Elwood—Above for a time.

Emerson T. Abbott—Put it above.

Prof. A. J. Cook—I would put it below.

W. G. Larrabee—I should put the empty story below.

Jas. A. Stone—I would put the one below having the queen in it.

C. H. Dibbern—I think I should put it below, but I have never tried it.

H. D. Cutting—Put the empty super above, but keep the queen below.

Rev. M. Mahin—I would expect the better results from putting below.

Eugene Secor—I don't know, but I think I would put the empty one below.

E. France—I would not do either. I would put all the brood below, with foundation to fill out, then put what combs you have left above, and fill out with foundation.

Mrs. L. Harrison—I should think above, but I have had no experience with below.

R. L. Taylor—Which hive is empty? Put the one filled with foundation above, of course.

Dr. J. P. H. Brown—If you do this at the right season, I should put the empty story above.

J. M. Hambaugh—If I understand you correctly, I would put the super of undrawn combs above.

A. F. Brown—Put below with one frame of unsealed brood from above. I have used this plan extensively.

Dr. C. C. Miller—I rather think below, provided the weather is warm. Perhaps above, if before the honey harvest.

Chas. Dadant & Son—Put it above in cool weather, anywhere in hot weather. Put it below during a heavy honey-flow, unless you want it filled with honey.

Mrs. J. N. Heater—That depends upon the time of year, and the strength of your colony. During a honey-flow, if you will alternate the empty frames with the filled ones in both stories, leaving the queen below, the bees will do quicker work for you.

Dr. A. B. Mason—If your "colony is in a one story hive," it is not empty, and the one with the frames is not empty. If you want to get the frames of foundation "filled out" with honey, put them above, and the queen below; but if you want to get them "filled out" with brood, put them and the queen below.

J. E. Pond—This is a mooted question. I prefer putting it above, but I am not able to say what the concensus of opinion is, in regard to the question. In my own locality it would make little difference, if any, but convenience to myself causes the opinion I give.

G. W. Demaree—If you want to prevent swarming, put the brood above and confine the queen below the excluder on the frames of foundation. To prevent confusion, put one comb containing eggs and unsealed brood below. If you want swarms, or do not object to swarms, put the foundation in the upper story.

Bee-Keepers' Photograph.—We have now on hand a limited number of excellent photographs of prominent bee-keepers—a number of pictures on one card. The likeness of 49 of them are shown on one of the photographs, and 121 on the other. We will send them, postpaid, for 30 cts. a card, mailing from the 121 kind first; then after they are all gone, we will send the 49 kind. So those who order first will get the most "faces" for their money. Send orders to the Bee Journal office.

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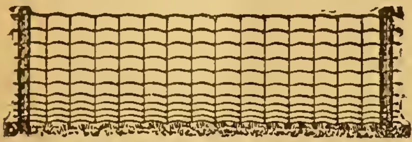
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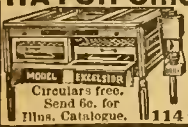
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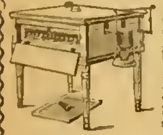
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General Items.

Bees Had a Fine Flight.

January 3 was a fine day, the mercury going up to 50 degrees in the shade. There was no snow, and the ground was dry and nice. The bees had a fine flight, and workt clearing out the hives, as on a spring day. The past honey season was good in this county, and the bees went into winter in fine condition. G. W. FASSETT.

Addison Co., Vt., Jan. 4.

◆

Looking for a Good Honey-Year.

The honey-flow in this part of the country in 1896 was a complete failure. In 1895 my best colony gave me a surplus of 135 pounds, while this year I did not get a single pound. Basswood did not yield any honey, neither did white clover, hence the above results. I am looking for a good honey-year in 1897. We have had excellent rains the past fall and this winter.

Cooper Co., Mo., Jan. 4. F. N. BLANK.

◆

Report for 1896.

I had 27 colonies last spring, increased to 33, got about 1,200 pounds of basswood extracted honey, and 800 pounds of extracted mint or balm honey. WM. SEEMANN.

Grant Co., Wis.

◆

Past was a Poor Season.

My 34 colonies are in the cellar, and doing finely. The past season was a poor one here. JOHN HUBBARD.

Hancock Co., Maine, Dec. 31.

◆

Best Season for Years.

The past season was the best for honey here we have had for a number of years. But there is no sale here for honey. From a part of my hives I did not take any honey. I had all we could use, and no sale for the surplus. D. B. SMILEY.

Lincoln Co., Mo.

◆

A Promising Young Bee-Keeper.

I am in charge of Mrs. Addie Eddy's bees for the coming year. The past year was a good one for honey, but not for swarms. Our apiary is located about 130 feet from the railroad, and is built upon a platform 14 inches high. The jar of the trains do not injure the bees any, as I can see. This is my second year in bee-keeping, and I am not 15 years of age. The Bee Journal has been worth twice its price to me.

LEON EDDY.

Otero Co., Colo., Dec. 28.

◆

Had a Midwinter Flight.

My 40 colonies are packt with leaves at the three sides—none in front—and chaff on the top. They are on the summer stands. I have wintered best by this method, as I secure warmth and dryness with needed flights. January 3 my bees had a grand flight. I like them to have a midwinter flight. R. D. HORTON.

Tioga Co., Pa., Jan. 4.

◆

A Little Bee Experience, Etc.

I am a locomotive engineer, and for amusement I am keeping a few colonies of bees. My boyhood days were spent in the southern end of the Adirondack mountains, of New York, and one of our chief pleasures as boys was hunting wild bees. My folks, as well as some of our neighbors, used to keep bees in the box-hives, and I well remember, some 35 years ago, how delighted I was to get to go with my mother to visit an old aunt where I could get my

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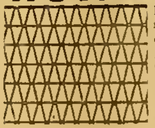
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fill of hot biscuit and honey! And even after these many years there is nothing that can tickle my palate equal to buckwheat cakes and honey.

Last spring I purchast 2 colonies, which increast to 7, and they produced, all told, about 450 pounds of honey. I have the bees packt in straw, with the entrances open so they can come out for a play-spell when they choose.

I will try the Doolittle way of queen, rearing, on a small scale first, to pass away the time between my "runs" on the road, and later I may tell what success I have.

I am greatly pleased with the American Bee Journal, and you may be sure I shall renew my subscription when the time comes around. I was sorry not to be able to be at the Lincoln convention, for it would have been a great pleasure to me to have made the acquaintance of the bee-keepers that were there, and to have helpt welcome you all to the great State of Nebraska. SANFORD HARTMAN.

Lincoln Co., Nebr.

Bees Did Well Last Year.

I have 56 colonies in the cellar. They are in good condition, and did very well last year. H. R. BROWN.

Butler Co., Iowa, Jan. 1.

Values the Bee Journal Highly.

No bee-keeper can afford to do business without the Bee Journal. I have had it either direct, or indirect, since 1878, and I have never had a copy but what paid me for the whole year's subscription—a single copy has been worth $10 to me, and I cheerfully recommend it to all. J. W. YOUNG.

Kingman Co., Kans.

Whitewash for Undressed Lumber.

On page 823 (1896), H. D. asks Dr. Miller about whitewashing a shed of undrest lumber. If he finds nothing better, I would suggest using a paint or whitewash made with lime and skim milk—common whitewash, only use skim milk instead of water in making. This makes a pretty fair, cheap paint. Common whitewash does not last long outdoors, but I think it is some benefit to lumber while it does last.

Crawford Co., Iowa. E. S. MILES.

The Poor Seasons Hit Hard.

We have been hit exceptionally hard by the poor honey seasons for the last three seasons. I began the season of 1894 with 60 colonies; the empty sections of the preceding season were not all required. The 1895 season I never put a section on—most of my colonies died in midsummer. I began the season of 1896 with 4 colonies, and now I have 16 in good condition. The prospects are good, and I hope to get where my bees will pay me well again. J. W. WILCOX.

Jo Daviess Co., Ill., Jan. 7.

Report for the Past Season.

My bees did very well, I think. I had 3 colonies, spring count, increase to 5—one natural swarm and one artificial. One colony lost its queen in swarming. She was clipt, and went into the next hive and the bees killed her. They reared another, and two or three days after she commenced laying she was missing. Then I sent for a queen, and it was two weeks coming, so I got only 24 pounds of comb honey from that colony. My best colony stored 76 pounds of comb honey, and the next 70 pounds. I took from all 253 pounds.

Mr. Stilson is reported to have made the statement in the convention at Lincoln, that at the last session our legislature past a law giving a bounty to glucose manufacturers. He is mistaken, for no such law ever past, neither was there any such bill before our last legislature. My reason for mentioning this is, that I dislike to have

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every bee-man from Maine to California think Nebraska would be guilty of such a thing. C. W. HARRIS.
Pawnee Co., Nebr.

[We think it must have been a mistake, if Mr. Stilson was so reported. We do not recollect hearing him make the statement referred to.—EDITOR.]

Paint for Rough Lumber.

On page 823 (1896), H. D. asks for a paint or whitewash suitable for rough lumber. Mix fresh-slackt lime with skim milk to a proper cosistency to apply with a brush. This will adhere well to wood, rough or smooth, stone or brick, and will preserve the woodwork to which it is applied.
J. F. EGOERS.

Bees Did Fairly Well.

My bees did fairly well last season. I increast from 125 colonies, spring count, to 210, and got about 9,000 pounds of honey, mostly in one-pound sections. I have it all sold but 100 pounds of comb honey and 300 pounds of extracted, at an average of about 10 cents per pound.
JACOB H. WARNER.
Schoharie Co., N. Y., Dec. 29.

Not a Good Season.

My bees didn't do well last summer. I started with 12 colonies, and now have 21 in good condition. I got about 160 pounds of honey from them. One neighbor of mine started with 25 colonies and got only 150 pounds; and another started with 7, and got 25 pounds. I lay my better success to the Bee Journal. JOHN SUTER.
Ontario Co., N. Y.

Mild Weather and Bees Flying.

Yesterday the weather was so mild and warm that my bees were flying. How does this weather compare with yours?
W. S. CHAMBERS.
Vancouver, B. C., Dec. 26.

[Our weather was quite similar at that time.—EDITOR.]

A Discouraging Experience.

Last spring I lost 62 colonies of bees, which left me just 3, and they gave me 1½ sections of honey, which brought 25 cents. My luck in bee-keeping this year has been very sad. I planned so much last spring, and I fed 400 pounds of granulated sugar to the bees, and 60 pounds of extracted honey, and now all I have left is the hives, partly filled with honey, and no bees in them. The State bee-association advised early feeding, and I believe it killed them, as it induced too much flying. S. M. CARLZEN.
Arapahoe Co., Colo.

White Clover Seed for an Acre.

In the Bee Journal of Dec. 17, Dr. Miller answers H. C., of Denison, Tex., "when and how much white clover seed to sow to the acre." The Doctor confesses his inexperience on the subject, and makes a latitudinous guess of 40 pounds of seed to the acre, and expects now to be "pickt up" by some one who knows something about it. Now, knowing something about it, I'll help out both the Doctor and H. C., trusting that it may also be useful to others.

One pound of white clover seed contains 512,000 seeds; 40 pounds, 20,480,000, or very nearly 20½ million of seeds.

One acre of land contains 6,272,600 square inches, or a little over 6¼ millions. Forty pounds of white clover to the acre would give about 3⅛ seeds to the square inch. Provided now the seeds were all sound, as most of the clover seeds now are, such an amount of seed would produce a very thick mat of clover-grass the very first year, far thicker than it needs to be. White clover is a creeper, its branches taking root again, and one grain will soon cover more than a square inch. It is therefore money thrown away to seed more than will cover the ground. One-third of 40 pounds is seed enough for an acre. Considering the high price of white clover seed ($12 per bushel of 64 pounds), H. C. can save more than $9 on an acre. The seed should be secured from a reliable seed dealer, and the ground well prepared. If suitable soil for white clover—a moist clay—it will be a success.
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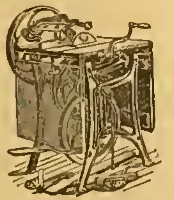

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Doctor's Hints

By Dr. PEIRO,
100 State Street, CHICAGO, ILL.

Sore Throats of Various Kinds.

Borrowing the wise sayings of old almanacs, "About now look out for snow," it is well to caution our readers that about now look out for sore throats of various kinds, more or less dangerous, and always painful enough.

This is the season of the year when these forms of afflictions are most apt to occur, and usually through neglect of minor precautions that can just as well be avoided. To be insufficiently clad, having imperfect foot-gear, as too thin or low or broken shoes; remaining inactive too long in a cold wind, and numberless other small derelictions invite just such troubles as you will wish yourself safely rid of when laid up in bed with more time for reflection than you wish you had. But, happily, most cases yield at once if prompt measures are used.

A hot bath—as warm as can be borne—is an excellent beginning. Then jump right into bed, cover, and keep warm. A drop or two of tincture of aconite every half hour and a gargle of alum-water used every hour, generally make matters all right in a few days. Light diet is always advisable in any form of fever.

Scarlet Fever.

This is one of the dreads that at this time of year is most likely to visit households. Just why it most prevails in winter no one can give a sufficient reason, but we know it does, and all the worse for that, because the patient cannot be protected as well as in milder seasons.

But, after all, with reasonable nursing and a warm room little fear need be felt for results. It is the *results* of this fever that may be serious, and this can usually be avoided by light diet, plenty of slippery-elm-bark water to drink, and a drop or two of tincture of belladonna taken in sweetened water every hour or two, according to the severity of the case. An excellent thing to do is the rubbing of the patient daily with camphorated lard. We have before stated how this should be prepared. If you have forgotten, we will tell you again. If the throat is sore, a gargle of alum-water every hour or two is usually sufficient.

Pleurisy.

This is also one of the frequent, but happily not dangerous, though sharply painful, afflictions suffered most from the very neglect just mentioned. Here is where the hot bath and warm bed are prerequisites to a speedy cure.

Horse-radish leaves wilted in hot vinegar and applied hot over the painful side of the chest usually gives prompt relief. If that is not at hand, a mustard poultice between two thin pieces of muslin (two old handkerchiefs are best) and left on until it burns pretty well, but not to blister, is very effective. Tincture bryonia alba, a drop every half hour, should be given from the start until the pain is materially less, when it may be diminished in frequency. Generally cured in two or three days.

HONEY and BEESWAX

MARKET QUOTATIONS.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

NO. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

Chicago, Ill., Jan. 7.—Fancy white, 12@13c.; No. 1, 11c.; fancy amber, 9@10c.; No. 1, 8c; fancy dark, 8@9c.; No. 1, 7@8c. Extracted, white, 5@7c.; amber, 5@6c.; dark, 4½c. Beeswax, 26c.

Comb honey sales are of small volume.

Philadelphia, Pa., Dec. 31.—Fancy white comb, 13-14c.; No. 1 white, 11-12c.; fancy amber, 10-11c.; dark, 8-9c. Extracted, white, 6-8c.; amber, 4-5c.; dark, 3-4c. Beeswax, 26c.

Comb honey arriving freely and market overstocked at present.

Albany, N. Y., Dec. 31.—Fancy white, 12-13c.; No. 1, 11-12c.; fancy amber, 9-10c.; No. 1 dark, 8-9c. Extracted, white, 6-7c.; dark, 4-5c.

The receipts of both comb and extracted honey are very large, and prices are somewhat lower. We have an ample stock of all styles except paper cartons weighing less than a pound.

Indianapolis, Ind., Dec. 31.—Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Kansas City, Mo., Dec. 31.—Fancy white comb, 15c.; No. 1 white, 13@14c.; fancy amber, 12-13c.; No. 1 amber, 11-12c.; fancy dark, 10-11c.; No. 1, 8-10c. Extracted, white, 6-6½c.; amber, 5 5½c.; dark, 4-4½c. Beeswax, 22-25c.

Boston, Mass., Dec. 31.—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Milwaukee, Wis., Dec. 31.—Fancy white, 14-15c.; No. 1, 12-13c.; No. 1 amber, 8-10c. Extracted, white, 6-7c.; amber, 5-6c.; dark, 4-5c. Beeswax, 22-24c.

New crop of honey begins to come forward. The demand is very poor and quotations almost nominal. Weather is very warm and the consumption of honey is very small. Plenty of fruit, and hence the appetite is satisfied with same in preference. Later on we expect an improved demand for honey of all kinds.

Cleveland, Ohio, Dec. 31.—Fancy white, 14½@15c.; No. 1 white, 12½@13c. Extracted, white, 6@7c.; amber, 4½@5½c. Beeswax, 22@25c.

There is not very much honey in our market. Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

New York, N. Y., Dec. 31.—Fancy white, 11@12c.; fair white, 9@10c.; buckwheat, 7@8c. Extracted, white clover and basswood, 5@5½c.; California, 6c.; Southern, 50c. per gallon. Beeswax in fair demand at 26@27c.

The market is quiet and inactive. Demand light and plenty of stock on the market.

Cincinnati, Ohio, Dec. 31.—Comb honey, best white, 10@14c. Extracted, 4@6c. Demand is slow; supply is fair.

Beeswax is in fair demand at 22@25c. for good to choice yellow.

San Franciaco, Calif., Dec. 30.—White comb, 10-11c.; amber, 7½-9c. Extracted, white, 5½-6c.; light amber, 4¼-4¾c.; amber colored and candied, 3¾-4¼c.; dark tule, 2¾-3c.

Beeswax, fair to choice, 23-26c.

St. Louis, Mo., Dec. 30.—Fancy white, 14c.; No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@10½c.; fancy dark, 9@9½c.; No. 1 dark, 7@8c. Extracted, white, in cans, 6@7c.; in barrels, 5@5½c.; amber, 4½@4¾c.; dark, 3½@4c. Beeswax, 26½@27c.

Baker stock of extracted honey, 4@5c; stock very scarce. Fair receipts of comb. Beeswax in good demand.

Minneapolis, Minn., Dec. 31. — Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Detroit, Mich., Jan. 9.—Fancy white, 13-14c; No. 1, 12-13c.; fancy amber, 11-12c.; No. 1 amber, 10-11c.; fancy dark, 9-10c.; No. 1, 8-9c. Extracted, white, 5½-6c.; amber, 5c.; dark, 4-4½c. Beeswax, 25-26c.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & CO., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN,

Kansas City, Mo.
C. C. CLEMONS & CO., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & CO., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
WILLIAMS BROS., 80 & 82 Broadway.

St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.
S. H. HALL & CO.

Milwaukee, Wis.
A. V. BISHOP & CO.

Boston, Mass.
E. E. BLAKE & CO., 57 Chatham Street.

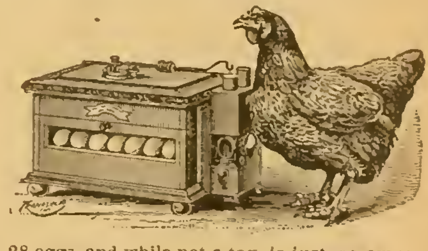
Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. McCULLOCH & CO., 380 Broadway.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central avs.

"The Wooden Hen."—The little illustration shown herewith is small only in size, but really large in magnitude, when we consider that the "Wooden Hen" is no larger than a live hen, yet has double the capacity. It weighs only 15 pounds, has a capacity of 28 eggs, and while not a toy, is just as amusing, besides being instructive as well.



We doubt if a more acceptable or more valuable present could be made to the farmer boy or girl, and we suggest that every one of them who read the American Bee Journal, write Mr. Geo. H. Stahl, Quincy, Ill., and ask him for a copy of his handsome little booklet describing the "Wooden Hen;" also his large catalogue of the Model Excelsior Incubator. Tell him you write at the suggestion of the American Bee Journal.

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Convention Notices.

COLORADO.—The annual meeting of the Colorado State Bee-Keepers' Association will be held Jan. 25 and 26, 1897, at the Horticultural Rooms of the Capitol Building in Denver. All interested in apiculture are invited to attend. FRANK RAUCHFUSS, Sec.
Elyria, Colo.

NEW YORK.—The annual meeting of the Ontario County, New York, Bee-Keepers' Association will be held at Canandaigua, N. Y., Jan 29 and 30, 1897. The usual cordial invitation is extended to all interested in apiculture, especially to the bee-keepers of adjoining counties. RUTH E. TAYLOR, Sec.
Bellona, N. Y.

IOWA.—The seventh annual meeting of the Eastern Iowa Bee Keepers' Association will meet at Anamosa, Iowa, Feb. 10 and 11, 1897. A corps of experimenters have been doing special work in the apiary, and will report. Lay all cares aside, and come and enjoy the good things prepared for you.
Andrew, Iowa. F. M. MERRITT, Pres.

WISCONSIN.—The Wisconsin State Bee-Keepers' Society will meet Feb. 3 and 4, 1897, in the Capitol Building, Madison. The meeting will be largely devoted to discussions of topics that are of present interest to Wisconsin bee-keepers. The editor of the American Bee Journal will favor the meeting by a valuable essay on marketing honey for 1897. The Secretary's report on foul Brood and securing a law to suppress the disease, will be interesting. Any question desired to be discussed will be sent to the Secretary.
Platteville, Wis. N. E. FRANCE, Sec.

ILLINOIS.—The annual meeting of the Illinois State Bee-Keepers' Association will be held at the State House, in Springfield, Feb. 24 and 25, 1897. The State Farmers' Institute meets the same week—including all the State live stock associations—and our Executive Committee, along with them, arranged for this date, in order that the Legislature might be in good working condition. (We all know what for.) There will be an effort made this winter to get a Pure Food Bill past, and that means bee-keepers want a hand in it, to see that the adulteration of honey shall cease FOREVER AND EVER. Two years ago we succeeded in getting an Anti-Adulteration Bill through the Senate, but it failed in the House, only for want of push. Let bee-keepers throughout the State impress upon their Representatives the importance of such a bill, and come to our meeting to refresh their minds on the subject.

Railroad rates will be no greater than a fare and a third, which will be announced later. Our programs will be issued along with the other State Associations named above. JAS. A. STONE, Sec.
Bradfordton, Ill.

One Cent invested in a postal card will get my large Catalog of All Root's Goods. Send list of what you want, and get price.
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37th Year. CHICAGO, ILL., JANUARY 28, 1897. No. 4.

Contributed Articles

Foul Brood—Life History and Treatment.

[A pamphlet, "Foul Brood and its Treatment," has recently been issued from the pen of Thos. Wm. Cowan, editor of the British Bee Journal, and author of other works on the subject of bees. This little treatise begins by showing the importance of the industry of bee-keeping and the valuable service performed by the bees in the fertilization of fruit-bloom. The author then draws attention to the one great pest of bees—foul brood. After giving a historical retrospect, and the nature of the disease, he sets forth the life history, which I copy in full, as it shows what foul brood is, and what it looks like—both the appearance of the comb having the disease, and the disease germs themselves, as viewed from the microscope. So far as I know, there has never yet been a photograph of a comb of foul brood, and I take pleasure in presenting one, copied from the work above mentioned. Mr. Cowan says:—Editor.]

LIFE HISTORY OF FOUL BROOD.

"It will be necessary to give only a brief outline of the life history of Bacillus alvei to enable us to understand somewhat of the nature of this disease.

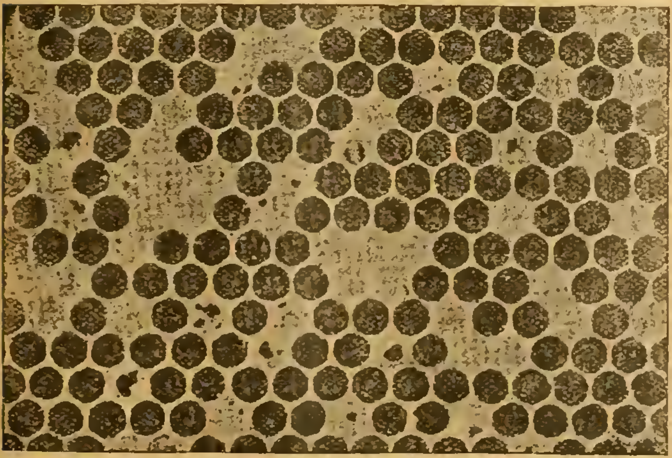

Fig. 1—Foul Brood in an Advanced Stage.

"Bacillus alvei is a pathogenic or disease-producing micro-organism, in form cylindrical or rod-shaped, and increasing by splitting or fissuration. The rods increase in length without growing thicker, and at a certain point divide and separate in two, to again increase, divide, and separate. Sometimes, in suitable nourishing media the lengthening of the rod is not accompanied by separation, but only by repeated division into longer or shorter chains of bacillus filaments, or leptothrix. The rods are also provided with a flagellum at one end, and are endowed with the power of locomotion. Under certain conditions bacilli have the power of forming spores, in which case a speck appears at a particular point of the bacillus, which gradually enlarges and develops into an oval, highly refractive body, thicker but shorter than the original rod. The spore grows at the expense of the protoplasm of the cell, which in time disappears, setting free the spore. The latter formation closes the cycle of the life history of the bacillus. The spores—representing the seeds—retain the power of germinating into bacilli when introduced into a suitable nourishing medium, and at a proper temperature, even after the lapse of long periods of time. At germination the

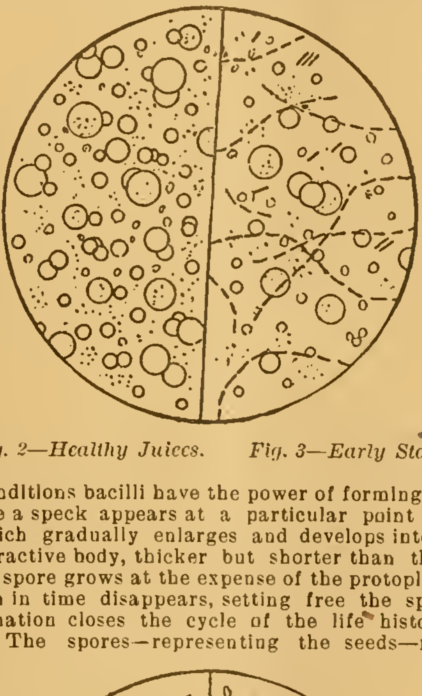

Fig. 2—Healthy Juices. Fig. 3—Early Stage.

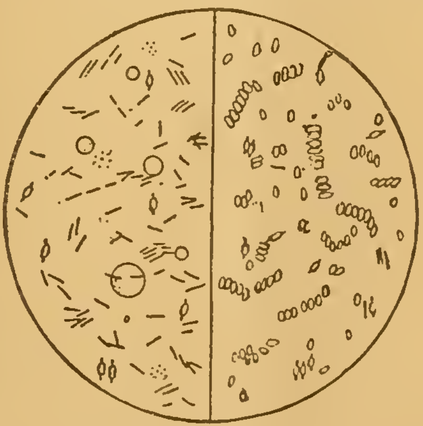

Fig. 4—Later Stage. Fig. 5—Last Stage.

spore first loses its brilliancy, swells up, and eventually its membrane bursts in the middle. The inner part of the spore then projects through the opening, and grows to a new rod.

“The spores also possess the power of enduring adverse influences of various kinds without injury to their vitality, so far as germinating is concerned, even if subjected to influences fatal to bacilli themselves. The latter are destroyed at the temperature of boiling water, while the spore apparently suffers no damage at that temperature. Freezing also kills the bacilli, but not the spores. In the same way chemical reagents, completely destructive of the bacilli, do not affect the vitality of the spores. Carbolic acid, phenol, thymol, salicylic acid, naphthol beta, perchloride of mercury, and many other substances, even when considerably diluted, prevent the growth of bacilli, but have no effect whatever upon the spores. The great resistance of spores to high and low temperatures, to acids and other substances, is due to their being incased within a thick double membrane.

“There are certain chemical substances which evaporate at the ordinary temperature of the hive, and whose vapors, while not actually killing the bacilli, arrest their increase or growth. Among such substances are carbolic acid, phenol (or creolin), lysol, eucalyptus, camphor, naphthalene, and several others.

“If a healthy larva be taken, and a small quantity of the juice from its body spread on a glass slide be placed under the microscope, we shall see a number of fat-globules and blood discs (Fig. 2), among which molecules are in constant motion. If, on the other hand, a young larva diseased, but not yet dead, be treated as above, its juices will, when subjected to a similar examination, be seen to contain a great number of active rods swimming backward and forward among the blood-discs and fat globules, which latter, as will be noticed (Fig. 3), are fewer than those in the juices of a healthy larva. We shall also find, as the disease makes rapid progress, chains of bacilli—the leptothrix form—becoming common. In Fig. 4 we have a representation of a latter stage of the disease when the larva is dead and decomposing. Here the fat and albuminoids will be found disappearing, and the bacilli assuming the spore condition. In Fig. 5 we see the disease in its latest stage, when the whole rotten mass has become coffee-colored, or has dried to a scale. Blood discs, fat globules, and molecular movements have disappeared, only a few bacilli are seen, and at last, as the nourishing material becomes exhausted, only spores remain.

☞ “It will now be understood, that, owing to the great resistance of the spores, chemical substances have no effect at all upon them unless administered under such conditions as would destroy the bees. From this it will be seen how great is the difficulty in curing foul brood unless the disease is attackt in its early stages.

“It has previously been stated that adult bees are sometimes attackt by the disease. To prove this, it is only necessary to take a weakly bee on the point of death, and examine what remains of its fluids under the microscope, when a large number of active bacilli will be found. Such bees leave the hive to die, whereas the infected larvæ remain in the cells, unless disinfectants to arrest decomposition are used, in which case the bees remove them from the hives.

METHOD OF TREATMENT.

“The superiority of the modern frame hive over the straw skep is here strikingly apparent. The latter was as a sealed book to its owner, who had no means of detecting the presence of foul brood except by outward signs, and these, as already pointed out, are only manifested when the disease is in its last and most virulent stages, at which time any treatment short of total destruction is entirely hopeless. The owner of a movable-frame hive, on the contrary, can, by the facilities it affords for examining the combs, at once detect the disease in its earliest stages, and adopt measures for arresting its progress, or for stamping it out altogether. Unfortunately the disease is seldom noticed on its first appearance; but it has nearly always to be dealt with when more or fewer spores are already in the hive.

“If, on examining combs to all appearance healthy, with brood compact and larvæ bright and plump, we find here and there a cell with young larvæ moving uneasily, or extended horizontally instead of being curled up, and changing to a pale yellow color, we at once detect the first symptoms of foul brood. The further progress of the disease can, at this stage, be arrested by feeding the bees with syrup, to which three grains of naphthol beta are added to every pound of sugar used. This is employed by the nurse-bees in preparing food for the larvæ. We can further assist the bees by putting naphthalene or eucalyptus in the hive. The bees then usually remove the dead larvæ.

“Apart, however, from experienced bee-keepers or trained experts, very few are fortunate enough to detect the disease at such an early stage, or to effect a cure so easily, and it becomes advisable to describe the method of procedure in ordinary cases—that is, when the combs have irregular patches of brood, with sunken and perforated cappings to the cells (Fig. 1) containing the coffee-colored mass inside.

“If the colony be weak, destruction of bees, combs, frames, and quilts, together with thorough disinfection of hives, is by far the best course to pursue. We thus destroy the spores, and so remove the source of infection. If, on the contrary, the colony be still strong, the bees may be preserved by adopting the following method: An artificial swarm is made of the bees, which are then placed in a straw skep and fed on syrup medicated with naphthol beta. The frames, combs and quilts are then burned. The hive is disinfected by being either steamed or scrubbed with boiling water and soap, and then painted over with a solution of carbolic acid (one part of Calvert's No. 5 carbolic acid to two parts of water), and when the smell has disappeared it will be ready for use. The bees are allowed to remain in the skep for 48 hours, by which time the honey they may have taken with them, and which may contain spores, will have been consumed, and the diseased bees will have died off. They are then shaken from the skep into a clean frame hive furnisht with six frames, fitted with full sheets of comb foundation, and are fed with medicated syrup for a few days longer. The skep used as their temporary home should be burned. All such work should be done in the evening, when the bees have ceast flying for the day, to avoid chance of robbing.”

☞ [A careful reading of the method of treatment as above will make it very apparent why we, in our large experience with foul brood, could not effect a *permanent* cure of the disease by the application of disinfectants in the form of carbolic acid, salicylic acid, and the like. While we could kill the bacilli themselves with the antiseptics, we had no effect on the *spores*, which would hatch later, and, as a consequence, give rise to the disease again. We found it absolutely necessary to burn the combs, frames, and sometimes the hives, when it was not practicable to immerse them in boiling water.

Mr. Cowan's statements, based on his investigation with one of the best microscopes, agree exactly with our quite extensive *experience* with foul brood some years ago.

The starvation plan, in connection with burning the combs and frames, and boiling the hives, has workt best—altogether the best—in treating foul brood. It never re-appeared after such treatment, though it did in nearly all the cases where the hives were not boiled, thus confirming the theory or fact of the *spores*.—EDITOR.]—Gleanings.

Union of Bee-Keepers—Honey Adulteration.

BY C. P. DADANT.

The members of the National Bee-Keepers' Union are voting on the questions that were raised at the last meeting of the North American Association. It is necessary that we should all look at this matter from a more lofty standpoint than the consideration of small differences of opinion concerning a name, or a few changes in the Constitution of this or that Association, or the question of selecting a Board or an Executive Committee.

What we need—every one of us—is UNION. Therefore, whatever be the result of the present vote, let us all make up our minds, beforehand, that we will abide by the decision of the majority, whatever it be. One of the greatest traits of the American nation is the willingness of its people to bow before the verdict of the ballot. We saw it it again last November, when the most excitable of politicians accepted quietly a verdict that upset their hopes. The bee-keepers of the United States need to unite as much as any class of men, whether they be laborers, or machinists, or capitalists. We have before us a dragon to exterminate—“ADULTERATION.” It is worse than a dragon, it is a true hydra, with thousands of heads, springing up all over the United States, and when we think we have scared it away, it raises another of its ugly heads at our very doors.

The National Bee-Keepers' Union has done good work, but what it has achieved is nothing by the side of what it should achieve. The damage done to bee-keepers in a direct way, by swindling commission-men, by cranky neighbors, or by mistaken fruit-growers who consider the bee-keepers as enemies, is nothing compared to the damage done them all over the country by the sale on all the markets, of the lowest grade of glucose under the label of “honey.” Is there a man among us who doubts that the sale of this shameful mixture under the name of honey has lowered the price of honey at least one cent per pound? I believe I put it mildly when I say one cent. Then at this rate, the bee-keeper who produces 10,000 pounds of honey annually is being robbed of $100 a year. The damage to all bee-keepers figures at millions. And in this reckoning, nothing is said of the damage to the public health, which is undoubtedly far greater than the loss that we sustain.

Years ago, a war was begun, by bee-keepers, against adulteration. In 1878 and 1879 a large number of petitions were sent to Congress by the bee-keepers, but to no avail. Yet it somewhat slackened the adulteration. To-day it is worse than ever. Yet, we can stop it, for it is against justice. All it needs is a sufficient effort.

We must, then, unite our efforts and construct a Bee-Keepers' Union fifty times as strong and as far reaching as what we have at present. Nothing need detain us. We have good men, plenty of them, who will do what we want, if we only give them the proper backing, both morally and financially.

Bee-keepers as a class are steady men. They are nearly all fairly well educated, most of them land-owners, and there are but very few unreliable men among them. Look about you, in all trades and professions, and see if you cannot make as respectable and reliable a gathering as any trade or profession.

I say, therefore, that we have the stuff, in our ranks, to form a Union that can command its place, and that can dictate to those who try to swindle us, directly or indirectly. All we need to do, is to convince ourselves that *union* is needed not only among the hundreds, but among the thousands of us.

Therefore, I beg you all to unite as one man on the decision of the majority. Give the "Union," whatever be its name, the backing of your vote and of your name. Consider that morally and financially it can do you more good, a hundred fold, than it will cost you. Let us all unite for the common good, and crush the hydra of honey-adulteration.

Hancock Co., Ill.

⁂

The Question of Amalgamation Considered.

BY PROF. A. J. COOK.

I regret exceedingly that there seems to be so much feeling on the matter of uniting the National Bee-Keepers' Union and the North American Bee-Keepers' Association. It seems to me exceedingly important that all bee-keepers should hold together and not let anything separate them. I have my own notions regarding the wisdom of this union which I will proceed to give; but in case a majority of bee-keepers think otherwise, I should at once fling my own opinion to the wind and heartily co-operate with those who think differently.

It seems to me that the North American and the National Union have entirely different purposes, and I can see no special reason why they should be united I think a good many people have a wrong view of the North American. They notice each year the comparatively small attendance which is for the main part wholly local, and they conclude—very unwisely, I think—that the Association is of small account. Our country is so immensely large, times of late so hard, and traveling so expensive, that it is impossible for any considerable number to attend such conventions where they are National; especially when devoted to any industry with such limited profits as those of bee-keeping. We may then rest assured that the meetings of the North American Association can be, will ever be, only of limited attendance. But are these meetings of small value? I have attended quite a large number in as many as seven or eight States, and I have always regarded these, as well as the many others that I have been unable to attend, as of great importance. In all these meetings there is always a sprinkling of our ablest bee-keepers from widely-scattered sections. Besides these, there is always a large attendance from the immediate locality of the meeting. We were so fortunate in Michigan as to have one of these meetings held in Detroit. We had at that meeting some of the best bee-keepers of Ontario, New York, Ohio, Indiana, Illinois, and some even from States much farther away, while the local attendance from Michigan was large. It goes without saying, that such a meeting will give a great impetus to bee-culture, not only in the immediate region, but throughout our country. We are always sure to get many new ideas, often from experts in the immediate localities which are often brought out prominently for the first time by such meetings. The editors are always at hand, and whatever is new and valuable, is sure of wide distribution. Thus I have never felt that such meetings lackt in importance or value, and have always regretted to read or hear them referred to in a slighting manner. I believe that we can hardly over-estimate the value of these meetings, if rightly conducted. I have had an exceedingly wide experience in connection with such gatherings, in both official and non-official positions.

I would have at such meetings all important subjects introduced by a brief essay never more than 20 minutes long—I would prefer ten—to be followed by a general discussion. I do not believe—and I have had wide observation—that this plan can be changed without detriment. It is not necessary that the person who writes the introductory address shall be present. Thus we may have representation from our ablest men, and, if desired, from every State. This makes such meetings anything but local, and I see no reason to be discouraged even if there are not more than 50 or 75 in attendance. I had the privilege of attending the Boston Society of Natural History for a considerable time, at two different periods. That Society has had a wonderful influence in developing science and quickening scientific research. Yet very frequently there have not been more than 15 or 20 in attendance at a meeting. No scientist would think of saying that those meetings were unimportant, or that that Society was a played-out institution.

Thus much for the North American Bee-Keepers' Association.

The National Bee-Keepers' Union, on the other hand, has an entirely different mission, which it has fulfilled with remarkable success. This is none other than to look after the interest of its members, and to see that they are not interfered with because of prejudice or ill-will. I do not see how any one can complain of the work of the Union. It started out with a prescribed purpose, and it has fulfilled such purpose promptly and with efficiency. Because of its work, already so well done, it seems to me now it may well have its scope broadened. I have long thought that it might well take up the matter of adulteration, and I see no reason why it should not also give aid in the way of marketing honey. If these two objects were added to its work and mission, I do not see how any of its members could reasonably complain regarding it.

When the matter of amalgamation was first broacht, I was quite favorable to it; perhaps more than anything else because so many of my good friends, in whose judgment I relied, were favorable. I find, however, that there are a good many members of the Union who are not in accord with such action. It has seemed to me all along that this alone should prevent any change. As an organization it was formed with a specific purpose. Many members joined it, paid dues, and as a result quite a fund is gathered. It seems to me that in this case we have no right to make any change, except those who have given to this fund are nearly, or quite unanimous, in the matter. I canot see how either the North American or yet the Bee-Keepers' Union are to be materially aided by a union of the two. Their purposes are entirely distinct, and while each may aid the other, and will certainly if successful, I do not see how each depends at all upon the other, or why they should be united. The Union has certainly done splendid work—has never been found napping; and so I can see no reason to advocate any change in its work and management, except to broaden its purpose as indicated above. It is certainly true that a large increase of numbers would give more funds, more influence, more power. But so long as we have several hundred dollars in the treasury, I do not see why such an argument should have very great weight. I fully believe that in case more funds are needed, and a greater constituency desirable, the same will be immediately forthcoming. Surely, with such a brilliant record behind it, and such ample fruits, we cannot expect any lack of patronage.

From the above considerations I have concluded that the time is not yet ripe for amalgamation. I do believe, however, that we may well amend our Constitution, if it is necessary, so as to take up the other two matters of adulteration and marketing.

There is another question that seems to be causing some discussion and difference. I refer to the matter of General Manager. I have always been a hearty advocate of the doctrine of civil service reform. This doctrine demands the continuance of a person in office—if I rightly understand it—as long as he proves efficient. I see, therefore, no reason why our present able Manager should be superseded. Were he to be superseded, I certainly should give my vote and influence in favor of Dr. C. C. Miller. I doubt if a better man for the position could be found if we searcht the world over. I am fully mindful of the objection made to Mr. Newman—that his present home in California places him at a long distance from all eastern bee-keepers; and yet, our telegraph and railroad facilities so greatly bridge this distance that I do not feel that the argument is a very important one. The fact, too, that the majority of those in the Union are citizens of California; the fact of California's exceeding importance as a bee-keeping

State, and the fact that she has already inaugurated an Exchange system, makes it somewhat appropriate that the Manager should be a citizen of California. I see no reason why prosecutions against adulteration could not be carried on from California as well as from Chicago, or New York. St. Louis, Cincinnati, Chicago, New York, Boston are all important markets and centers of honey distribution—surely, no Manager could exist in all of these places. Why, then, may he not as well live in San Francisco, the chief city of perhaps the most important honey-producing State in the United States?

These are my reasons for voting for the continuance of Mr. Newman in office. If the majority of those in the Union believe that Chicago should be the home of the Manager, and that Dr. Miller is the more suitable man, I shall be entirely satisfied, and work as heartily for the Union and its interest and success as I have done in the past. Whatever may be the result, I sincerely hope that all discord and bitterness will be avoided. We are living too late in the world's history to allow inharmony to come into our ranks. I believe that one of the greatest and most important things to-day, not only in the bee-keeping industry, but in all industries, is for the people engaged to work together. Let us all work energetically to carry our point, if we deem it important, and then when a decision is given let us all fall into the ranks and work as one man to accomplish what is desired, and in the way which the wisdom of the majority points out.

Los Angeles Co., Calif.

Something from a Foreign Bee-Paper.

BY CHARLES NORMAN.

Number 12, of the Leipziger Bienenzeitung, came to hand, and a few items from it may be of interest to your readers.

BLACK BEES PREFERRED IN MANY COUNTRIES.

Tho not a few German bee-keepers handle the Italian, Carniolan and other foreign bees, yet in the north and middle Germany, at any rate, the preference is given to the common black bee. The German bee-keepers being anything but backward people, there must be some quite good reason why they thus differ from us who have very little use for the black bees—the more so because our winters in the Northern States are colder and severer than winters over there. To me the reason seems to lie in that our *summers* are so very hot. The Italian bee is the bee of a warmer climate, and as our climate, in spite of our extreme winters, is a warmer one on an average than that in north and middle Germany, in many parts of France, Switzerland, Austria, and so on, the Italian bee suits *us*, while *they*, with their pretty cool, but so far even and equal climate, "go in" for the black bee.

THE PROPER WARMTH OF A BEE.

That renowned Polish bee-keeper, Dr. Ciesielski, conducted some further experiments to find out the proper warmth—not of a whole colony (we know enough in this particular)—but of the single bee. He used exceedingly fine thermometers, made for the purpose. Inducted into both thorax and abdomen, they showed 28°, Reaumur; inducted into the abdomen alone, the stomach being filled with honey, there were 20°, Reaumur. Pastor Fleischmann, who reports this, received his information from some Polish-German bee-keeper. Fleischmann says: "I myself do not understand any Polish, and shall certainly not learn it before I am able to pronounce the following sentence, which I copied when at Reichenberg, namely: 'strc prst skrz krk.' I presume I had better let the Polish alone. Younger ones may learn it. I won't."

Dr. Riehm says: "Any creature feels best in a temperature which is below its own warmth." Bees form clusters when the temperature is below 32°, Reaumur. At about 32° they begin to uncluster and to fan with their wings in order to remove the excess of heat. Therefore, the temperature about them should amount to some (not much, tho) below 32°.

A PAMPHLET ON FOUL BROOD.

Early in 1897 a pamphlet on foul brood will be publisht by Mr. Lichtenthaeler, at Herdorf. Pastor Fleischmann, who read the manuscript, and who is a first-rate bee-keeper, you understand, positively asserts that foul brood can be cured without the use of any remedies, just by proper treatment, and that hitherto the real danger of infection and transmission has been sought for in the wrong place. Messrs. G. M. (Doolittle, I mean), R. L. (Taylor, I mean), E. R. (Root, I mean), etc., look out for said pamphlet! You smile at Mr. Fleischmann's "bold" assertion! Well, there are in Europe not a few bee-keepers of note (among them Mr. Bertrand, of La Revue Internationale, and Mr. Gravenhorst, of the Deutsche Illustrierte Bienenzeitung) that are strong advocates of *curing* foul brood.

PASTEBOARD FOR WINTER PROTECTION.

That kind of pasteboard which serves for covering roofs and the like is used by some to protect their colonies in winter, because "it not only keeps warm, but is highly resistent to the influence of temperature."

A HONEY-PLANT OF HIGH RANK.

L. Ehrhardt speaks of "Hydrophyllum Virginianum" as being a honey-plant of the highest rank, being much better than even linden. He distributes seeds *gratis*, which shows that he is not "interested" in what he says. Will some one of our botanist bee-keepers, or bee-keeping botanists, enlighten us regarding said plant?

HAND-PRESSES FOR FOUNDATION MAKING.

There are several kinds of hand-presses to make foundation with, in use in Germany, Austria, Switzerland and France. Were not the duty, the freight, and the middlemen's commissions on them so very high, many of us over here would, no doubt, buy and use the one or other of them. Something should be done to also have them manufactured in our own country. It is quite a saving to the bee-keeper to make his own foundation.

FOREIGN HONEY-EXTRACTORS.

As to honey-extractors, some of those which are in use in Europe are, I apprehend, ahead of ours. Whilst our extractors hold either two or four frames, there are some there that hold three frames, standing triangularly in the can—quite an improvement on the two-frame machines—and not requiring a larger can than the latter. Furthermore, whilst our extractors have the gearing on top of the can, some German extractors have it at the bottom, and the top is completely open and unobstructed—nothing is in the way of placing the frames in the can, and lifting them out. Finally, most of the German extractors have three iron legs with eyes in them to screw them to the floor, so that there is not a particle of shaking when the extractor is operated.

BEESWAX A "CORN" CURE.

Are you troubled with corns? Warm some pure, unbleacht wax, so that it is soft and adhesive, and can easily be kneaded. Spread it on a very small piece of paper or white linen, just large enough to cover the corn. Let it lie for three to four days, when, as a rule, the corn will be so softened that it can be completely removed. If not, use a similar plaster for the same length of time, when success will be certain. Before applying the remedy, take a foot-bath.

That 12th Annual Union Report.

BY C. THEILMANN.

FRIEND YORK:—After reading the General Manager's 12th Annual Report over again, and comparing the New Constitution (which he criticises) with the old, or the authority he is taking in my case, I can hardly see any use at all to make, or to have, a Constitution. Any number of men can join together and select one of the lot to whom they pay the money, and let him use it as he sees fit without any examination of the finances by any one, but just accept the receipts and disbursements as he sets them forth. It seems to me if the Constitution of the old Union gives the Manager such rights, *it* needs revision more than the New Constitution, for the Treasurer of the new Union has to give bonds at least, while in the old Union it is only a trust.

I did not think that the General Manager could set forth such a shallow excuse, about myself being impulsive, and my case not being the "real issue." This is a very easy and cheap way to get out. I admit I am no slouch, but learned the good rule of the wise man—"What you want to do, do at once."

If the General Manager was located at Chicago, he would have been the first man I would have lookt up; but living in California, I might have been in jail or dead before I heard from him, for it took several weeks before I got any answer after I appealed to him; and what good did it do me? Only to see in his Report my nicely-written-up trouble! I can tell you there is not much satisfaction in that, to an old friend and member of the Union ever since it started.

I would like to know what the General Manager means by my case not being the "real issue." I think it was just the right case for the Union to assist—to show its value to every bee-keeper of note and the country at large; for no other case of our whole fraternity is spread as widely over the land as this one is. It was publisht in the daily and weekly papers almost everywhere, and would have helpt to enlarge the membership of the Union materially, besides making some of the bad commission-men draw in their horns. We cannot always get a case where we can expect a victory at the end, likewise to constitute a precedent.

It begins to sound very shrill to my ears, when I am told that I must send my honey to good, reliable men, and not to unreliable. Who can tell us who is bad and who is good? Some men are good to-day and bad to-morrow. Being in Chicago a number of times, I posted myself somewhat, and think I know a number of good men, but if I have any honey to ship to Chicago next year, some of them may treat me just like Bartling did the past season; and to go there before I ship any honey is rather expensive. The rating of the commercial agencies is no longer any warrant, as can be seen in the cases of Wheadon and Shea. One of them was rated at $35,000, and the other at $45,000; and each has left his city now—the one from Chicago and the other from Minneapolis.

A good, strong Union would better matters; but reading the General Manager's Report, or pamphlet, it looks as if we were going to have two Unions—one in California and one further east, tho he does not say so right out in his last sentences. I hope that matters can be arranged understandingly, so as to amalgamate into one big Union.

I do not know why it is that our California brethren always claim a little more than their share, unless it is on account of their imagination. W. D. French claims that about one-fourth of the members of the Union live in California. I count 281 members on the present list, of which 39 live in California. One-fourth of 281 is 70¼, so they claim nearly double as many members as they really have on the list. It is the same way with their big honey crops, and if they do have a good crop, they can't find any other market than the Eastern States. If they would seek a market for their product outside of the United States, then their Honey Exchange would have a right to brag; but the way it is, I cau see no advantage to their Eastern brethren.

Wabasha Co., Minn.

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Are Bees Domestic Animals?

BY F. L. THOMPSON.

In the course of some committee work it became desirable to find out whether bees could with propriety come under the provisions of certain statutes relating to domestic animals, or whether the only way to secure the benefit of said statutes would be to pass new ones specially relating to bees. For this purpose I mailed a letter to our State Attorney, asking him the question, and also presenting the following facts for consideration:

"A colony of bees is in every practical respect on the same footing as a sheep, a steer, or a horse. It is a recognized piece of property, has a definite market value (from $2.00 upwards), is subject to contagious diseases, and is individualized. It does not run wild any more than steers or horses do when left to themselves, and even then this 'running wild' is confined to the offspring (swarms), the old colonies invariably being stationary; and to a very limited portion of the year. And this 'running wild' does not affect the ownership of swarms, as long as they remain on the premises of the owner of the apiary; which they almost invariably do for a few hours or a day preparatory to leaving for good (when left alone). Aggregations of colonies (apiaries) furnish a number of men in this State their only means of support, and materially increase the income of many more. The facts that a single worker-bee is not individualized and has no value, and that a 'colony' is not an animal, are amusing sophistries, but have nothing to do with the practical aspects of the case. A colony is virtually an organism [no reference to Gerstung's theory]; its existence is dependent upon the individualized queen. Queens have a definite value (averaging one dollar), and a colony long deprived of its queen is worthless as a colony; it is not regarded as a commercial article, except for the honey or wax that may be in the hive."

His reply was: "The statutes must be construed with reference to their evident intention and purpose as well as to their language. In my opinion, the statutes concerning domestic animals do not, and are not intended to, include bees. I suppose statutes of a similar nature could be past, but I am satisfied that no court would construe the present statutes on that subject in such a manner as to include the class of property mentioned."

Somewhat to my surprise my letter also got into one of our daily papers (how, I wonder?), and it and the request was written up in a vivacious style, accompanied by a cartoon representing our State veterinarian doucheing the tonsils of an invalid 9-banded bee (not at all what we meant to insinuate). The last paragraph read as follows:

"Mr. Thompson's letter nearly stumped me when I first read it," said Attorney General Carr. "I do not pretend to be a naturalist, and so I did not care to say whether or not the scientists class a bee among the domestic animals. On looking up the authorities, however, I felt compelled to decide against Mr. Thompson, so I wrote him, giving my opinion that in law a bee is not a domestic animal." (Note, however, that I did not touch on the "scientific" aspects of the case.)

Now, far be it from us to desire that a statute should mean anything else than what it was honestly intended to mean. We will not break our hearts over *that*. But aside from this particular case, does it not seem desirable that bees should be *something* in law? If not domestic animals in law, what are they? They are not wild animals, as I attempted to prove, and as the State Attorney virtually acknowledged, by his use of the word "language;" they are not products of the soil, or real estate, or inanimate objects; they are just property—but property that neither is nor represents any of those things, and yet is subject to taxation, would seem to be something of an abstraction. The headings of the newspaper article were: "When is a Bee Not a Bee? When it is a Domestic Animal, says Attorney General Carr." Must we stop at that?

Can readers of this journal inform us of any legal decisions on this point? It might be important, some time.

Denver, Colo.

Questions AND Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

A Good Honey-Drink.

Please tell how honey-wine, metheglin and mead are made. J. B.

ANSWER.—I have no experience in that line, but here's a drink that I have found good: In half a glass of warter stir a spoonful of fruit-juice and a spoonful of extracted honey; then stir in what bicarbonate of soda will lie on a dime; then stir in half as much tartaric acid, and drink at once. [As there are already too many intoxicating drinks made in the world, we hope our readers will not call for any more. At least *we* can't consent to use the Bee Journal to help along intemperance. We're "agin" the whole infernal strong-drink business.—EDITOR.]

Partly-Filled Sections—Cappings—Dividing—Feeding.

1. I didn't know what to do with my partly-filled sections for a time, and I have them on hand yet. I see it is advised to set them all out in the bee-yard at one time in the fall, and let the bees clean them out. Would it be best to do it at this time of the year, the first warm day when the bees fly? If not, what is best to do with them?

2. When honey is extracted, what is the best thing to do with the cappings? If they are put into a solar wax-extractor, how are the bees kept away?

3. I would naturally understand, on page 756 (1896), that a frame with all the adhering bees could be taken from each of eight hives, and be put into an empty 8-frame hive, with a queen-cell, and all would be harmonious, and as "strong as any in the apiary." Am I right?

4. On the same page another man says he feeds his bees

continually till the first of August. I understand from these words, that he makes it a rule to commence in the early spring and feeds a certain amount, according to his judgment, every day until the first of August or until the fall flow of honey commences. Am I right in this also?

C. G. B., Blue Rapids, Kans., Jan. 6.

Answers.—1. The object of having the bees clean out the sections in the fall is so that there may not be the slightest remains of honey to form granules, for these granules will affect the new honey that the bees put in the following season. The probability is that it is too late now to do any good, for the honey has probably begun to candy before this, and when it is candied you can't count on the bees cleaning it out. If any of the sections are half filled, perhaps you can sell them at a sufficient price to make that the most profitable thing to do. If to use in your own family, you can probably do nothing better than to cut out all which contain any honey, whether much or little, pack in a crock and melt very slowly. Then when all has been melted and has again cooled, take the cake of wax off the top, and use the rest as extracted honey.

2. Better first rinse the cappings with water and use the rinsings to make vinegar. Then put them in a wax extractor. There's no trouble about keeping bees away—solar wax extractors are made bee-tight.

3. The reference is to a passage from the paper of N. E. France, in which he says: "As soon as the harvest begins, our colonies are very strong, often queen-cells started. We then divide them as we think best, taking from each colony from one to three or four brood-combs with adhering bees, and form new colonies on new stands, as strong as any in the yard." Mr. France is a man of whose practical ability I have a very high opinion, but I don't think he can make what he would call a strong colony simply by putting in an empty hive 8 brood-combs with adhering bees. But you will notice he doesn't say how many combs he puts in the new hive, and it may as easily be 16 as 8. If he puts only 8 in the hive, then he must mean that in time the colony will be as strong as any in the yard. Perhaps Mr. France will kindly speak for himself.

4. I suspect there's a screw loose somewhere about that report. Will Mr. DeLong tell us about it?

Drones Reared in Worker-Cells.

I had a one-frame nucleus, the comb being all worker-cells. The center of the frame was sealed brood, surrounded by unsealed brood, and around the unsealed brood were eggs. I took away the queen and these eggs hatcht out drones. Can the bees change worker-eggs to drone-eggs? If not, how do you account for this?

W. R.

Answer.—I don't believe workers can change the sex of eggs. It often happens that in her last days a queen becomes a drone-layer, and it is possible that she changed to a drone-layer about the time of laying those eggs.

Non-Swarming Bees—Questions.

I have a colony of bees that has not swarmed for seven years. They have not failed to store a surplus of 25 to 50 pounds of comb honey. Last year, when 40 colonies only stored 350 pounds, this one stored nearly 50 pounds of it. It can't be the location, nor size of hive. A colony whose queen is a full sister, sitting by the side of it, swarms every year. The hives are small, 8 frames, 10x12. The non-swarmer is in an old hive, which sits upon a box, and has not been moved in the seven years; the bottom has rotted, and the bees have eaten it out in channels running from front to back. In entering, they pass down into these channels, climb up the sides on the frames. I have been thinking of making a hive on the principle of this old one, and see if it will result in less swarming. My idea is to make a body 1½ inches deeper than the frames; immediately under each frame place a board the thickness of the bottom of the frame, standing on edge, so that each frame rests upon it, this board to be bored with holes the size of cells. This will leave quite a space beneath the frames that the bees can make no use of, except to cool themselves off in. I shall try this hive next summer with one of my strongest colonies. What do you think of the idea?

F. T. B., Virginia.

Answer.—I think well of the idea, only it is possible you might attain your end with less trouble. A colony with abundant entrance for air is less inclined to swarm than it otherwise would be. Raising the hive by putting an inch block under each corner, leaving the hive open all around, can hardly be beaten for giving plenty of air. But don't hope that the plan you propose, or any other plan of giving plenty of air, will suffice to keep bees from swarming seven years, or even two years. I suspect that there may be something in the blood of that colony that prevents swarming, and you might do well to breed from it. That colony whose queen is a full sister, and which swarms every year, doesn't prove much. Suppose the queens of the two colonies were full sisters seven years ago. They probably met drones of different blood, so that the workers of one queen had only half their blood the same as the other workers. Allowing that the blood in the one hive remained the same (a very unlikely thing, for altho the colony did not swarm, the queen was probably changed once or twice during the seven years), the swarming colony would change half its blood every year on account of the young queen meeting a drone of different blood, so that in the fourth year only one-sixteenth of the blood would be the same, and in the seventh year only one part in 128!

A Question of Management.

I had three queens I wanted to save for another year with bees enough for a fair colony. I put one queen in the lower story and two queens in the upper story with a queen-excluder division-board. Now, what shall I do in the spring? I can separate, dividing the bees equally; if so, when? I can let them remain until they swarm, and get a large swarm, the queen in the lower story going with the swarm, then separate and have four swarms with one young queen. I can take out the two queens, making two nuclei, leaving most of the bees with one queen.

Reader.

Answer,—The first thing to be done is to see how many queens are present in spring. If more than one, then something depends upon the amount of bees present. If all together there are only bees enough for one fair colony, let them alone till the numbers increase sufficiently to warrant taking away part, then take only as you can afford, always leaving the one strong colony.

Getting Bees from a Bee-Tree—A Bee-House—Spelling Reform—Sowing Sweet Clover.

1. A friend of mine and myself expect to cut a bee-tree in the spring. I am to get the bees and he is to get the honey. I have what I consider a very fine hive, that I make myself; it holds nine Hoffman self-spacing frames. I would like to know just how to proceed to get the bees from the tree into the box. I have never had any experience along this line.

2. I have a bee-house with the open side facing the south. When the weather got cold the past fall I put my bees into this house and packt them in chaff for winter. I just built the bee-house the past fall, and I expect to keep my bees in it next season. I have the hives packt almost together. I guess they are about two inches apart. Now, can I leave them that way next summer, if I put a board between each two, or will I have to move them farther apart? or would it be better to leave them as ther are, and divide them off by twos with boards in front, and then have the entrance of the hive at the west open at the west, and its companion hive open at the east, taking it for granted that my bee-house faces the south?

3. I am teaching school. Do you think it would be advisable for me to teach the new rule for spelling, as described on page 8?

4. I want to sow some sweet clover this spring, and would like to know about what time to sow, and about how much to sow to the acre? We live in latitude 41¼°.

This is my first season in the bee-business, and I like it very much, and I find that the American Bee Journal is a great help to me.

E. M. L., Pennsylvania.

Answers.—1. Circumstances vary so much in matters of this kind that about the best thing you can do is to take your common sense along, and let it guide you as exigencies arise. In some cases the tree can be carefully cut so as to disturb the combs very little, and a section of the tree containing the colony may be hauled home if desired. In other cases the whole business will be smasht to pieces, and you may do well to get the queen and part of the cluster in a hive or box with some of the broken combs. The bees will be more or less inclined to fly up to the place where their home was, but if the brood-combs be left on or near the ground, they will after a time give up and accept the inevitable. When they get settled down you will find them generally little inclined to fight, or indeed to do anything. They have sometimes been hauled some distance in the section of the tree without being fastened or confined in any way, remaining in a kind of dazed condition in and on the log. If they are moved only a quarter of a mile or so, there is some danger that a few will return to the old spot. The rougher the treatment they receive in the felling of the tree the less trouble there will be about their returning to the old spot.

2. If you do not find it inconvenient for yourself, you can probably get the consent of the bees to have the hives close together in a straight row. Even if some of the bees enter the wrong hives, it will make little difference, for when a worker returns laden from the field, she is pretty sure of a kind reception in any hive. In one respect, however, there is danger, and that is with respect to young queens returning from their wedding-trip. Their entrance into the wrong hive generally means the ruin of the colony to which they belong. Some say that painting the entrances of the hives different colors will enable the young queen to identify her own home, and Sir John Lubbock has proved quite satisfactorily that bees distinguish colors. Something should be done to prevent the appearance of a straight row with all the hives looking exactly alike. Almost any object or objects in front of the hives will help in this regard. A tree growing close in front, a post before every second or third hive, anything to make one part of the row look different from the others. Your idea of having the hives in pairs will help much. It is practically making them twice as far apart as they otherwise would be. Putting a board between each two, as you suggest, will hardly do any good, but putting a board between each pair will. If there are as many boards as hives, and all looking alike, then there might as well be no boards.

3. It might not be the wisest thing to teach anything different from the text-books. People are very strong in their prejudices with regard to what they have already learned, otherwise it would be utterly impossible for such outlandish spelling as we have, to continue for a day. Let the scholars spell according to the spelling-book, but there will be no harm in your telling them that a movement has begun, and that many editors, college presidents, professors and others have stopt using "ed" for "t" in the last syllable of some words. Your patrons could hardly make any objection to your using the better spelling yourself, and when writing on the blackboard.

4. Sow about the time farmers in your locality think best to sow red clover, putting it in a little deeper than red clover seed. It will be no harm to sow as thick as red clover, but less seed to the acre will do, as a single stalk of sweet clover covers a good deal of ground.

Comb-Honey Management—Paint for Hives.

1. In the July 30 and Dec. 31 (1896) issues of the American Bee Journal, Mr. J. A. Golden gives a plan for keeping both the colony and the swarm at work together in the surplus receptacles and preventing increase. What are the disadvantages if this plan as compared with the plan recommended and practiced by Dr. Tinker, and described by him in his work, "Bee-Keeping for Profit."

2. Do you think a paint made of hydraulic cement and skimmed milk would do for bee-hives? General LeDuc, once Commissioner of Agriculture, recommended this paint for farm buildings, and said that it is very durable. The color is said to be a creamy brown. The paint is made by mixing one gallon of sweet skimmed milk with a full quart (or a little more) of the cement. If the color is not objectionable, I do not see why this is not a good paint for hives. It is certainly very cheap. If I try it, I think I will paint the covers with ordinary white paint. E. B.

ANSWERS.—1. After studying over the matter for some time, I am inclined to say I don't know, and leave Mr. Golden to make the answer, as being more familiar with this plan.

2. I have no practical experience in the matter, but from what I've read I have a favorable opinion of the material you mention. Generally the color of paint on a bee-hive makes little difference, for usually the hives stand in shade.

Keeping Sections Clean on the Hives.

Do you employ any other means than exact spacing and tight wedging to keep your sections clean? If so, I haven't heard or read of them, and would like to know them now. This staining of sections is a great bother with us toward the end of the season, and altho we may scrape them, we can never get them to look "just right." Using tallow and other fatty substances has been suggested, but I feel a little doubtful about the effect such stuff would have on the nice, polisht sections, and whether ink from the stamp would adhere to the wood. What do you know about these things? A. B.

ANSWER.—The tops and bottoms of my sections are not protected from the bees in any way. If taken off early in the season there is very little discoloration. If left on until after the honey-flow, the bees take great delight, apparently, in varnishing the whole surface with glue. But this varnishing period comes with a flow of darker honey, such as I don't want in sections, if indeed there is any flow at all. So when the flow of light honey stops there has been little varnishing done, and at that time all sections are generally removed, whether filled or not. I think there may be a good deal of difference in localities as to the amount of propolis gathered, but I am inclined to the opinion that in all localities the glue nuisance troubles less in the early part of the season than later.

Requeening an Apiary.

The queens in my new apiary are like the colonies—from good to bad. Would it pay me, do you think, to invest any money with queen-breeders? The reason I put it thusly is because I did invest last year, and the queen, which was a tested one from a very reliable breeder, certainly proved herself to be no better than some of the good ones I had. She either was nothing more than a hybrid herself, or mine are Italians, one and all. In case you should think it best to get new blood, I want to say that the first of May is the earliest I can get such queens on account of the cold in crossing the Continental Divide. Would queens do me much good procured at that time for the honey season which opens July 1, or earlier? You will understand that I couldn't afford to buy enough queens to requeen the whole apiary, but would have to breed from the bought ones. COLORADO.

ANSWER.—I don't believe I'd try to get the stock changed in time to make any impression on the honey crop of next season. To do that you'd have to get the queens so early that there would be chance of much loss, and, besides, the new queens would cost more than later. With some of them there would be loss in introducing, and that would cut into the honey crop. Better wait till later in the season when queens can cross the Divide with more comfort and safety, procure one or several from which to breed, get some young queens bred from them in 1897, just what you can conveniently accomplish, but hold chiefly to the view that you are getting these new queens in 1897 so as to have them on hand in good season, *and in good condition*, to use in 1898. Of course, you would keep in mind all the time to suppress a poor queen whenever there was opportunity.

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

The Alsike Clover Leaflet consists of 2 pages, with illustrations, showing the value of Alsike clover, and telling how to grow it. This Leaflet is just the thing to hand to every farmer in your neighborhood. Send to the Bee Journal office for a quantity of them, and see that they are distributed where they will do the most good. Prices, postpaid, are as follows: 50 for 25 cents; 100 for 40 cents; or 200 for 70 cents.

The Names and Addresses of all your bee-friends, who are not now taking the Bee Journal, are wanted at this office. Send them in, please, when sample copies will be mailed to them. Then you can secure their subscriptions, and earn some of the premiums we have offered. The next few months will be just the time to easily get new subscribers. Try it earnestly, at least.

Now is the Time to work for new subscribers. Why not take advantage of the offer made on page 45?

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Editorial Comments.

The Wisconsin Convention meets at Madison (the State capital), Feb. 3 and 4—next Wednesday and Thursday. It is now our intention to be present, and we hope to meet and greet a goodly number of our readers in that great honey-producing State. We trust it may be the largest and best bee-convention ever held in Wisconsin. Why not be there and help to make it so?

◆

They Would Exclude the Bees.—There is an agitation in the city of Riverside, Calif., to exclude the bees from that city. The point made by those who would drive the bee-keepers away is the old one, of bees injuring fruit. Prof. Cook had the privilege of speaking in that city recently to a large audience in one of the Farmers' Institutes. He pointed out as best he could the facts in the case. Here may be another case for the Union to put in its good work, and teach some people a lesson.

◆

Petition Against Adulteration.—Mr. C. P. Dadant, in his article on page 50, refers to a petition against honey-adulteration, sent from bee-keepers to Congress in 1878-79. This matter was in the hands of Mr. Chas. Dadant (C. P.'s father), who received all the petitions from the bee-keepers of the country, and forwarded them to Washington. But the commendable work begun then seems not to have done any practical good, for we believe nothing more was ever heard of the petitions. But it was a start, and we believe if a strong national organization of bee-keepers were to undertake such an important thing, and follow it up closely all the way through, something would result therefrom. As Mr. Dadant says, bee-keepers need to *get together*, and push as one man for their rights.

◆

The Proposed Amalgamation of the National Union and the North American will be decided this month, at least for the present. If it is defeated, we do not see that the National Union will have gained anything—in fact, it will prove a real loss to it, we believe.

Prof. Cook writes quite an article on this subject (see page 51), but we fail to see that he gives any good reason why amalgamation should not take place now; but, on the contrary, he says he is quite willing to work heartily for the success of the new Union if amalgamation carries. He also suggests that it would be well for the National Union to so amend its Constitution as to take up the subject of honey-adulteration—one of the very important things that the New Constitution especially contemplates, though the General Manager, in his 12th Report, endeavors to discourage the undertaking of this matter, by saying it will take millions of money to fight the numberless cases that would arise all over the country. But we all know that we do not have to fight beyond the extent of the Union's treasury or financial ability—simply do what we can with the funds collected, to put down adulteration. That's all. And that is all the Union has ever done in the past—simply kept safely within its income in defending the pursuit of bee-keeping.

Prof. Cook, in common with some other enthusiastic Californians, entertains the wrong idea that the Union's members in that State are about "the whole thing," for he says: "The fact, too, that the majority of those in the Union are citizens of California." But he'll find it a hard matter to convince Eastern bee-keepers that only 40 members is a major portion of 280. When we went to school we were taught that 40 is as nearly as can be *one-seventh* of 280. To say the least, it doesn't look well for the "tail" to try to wag the "dog," even if it could, and tho the "tail" be a very useful and necessary part of the "dog."

While on this subject, we wish to speak of a matter suggested in the first paragraph of Mr. Theilmann's article on page 52. Now we do not think that there is a single member of the National Union who for one moment ever entertained the idea that the General Manager's brief annual financial statements were incorrect or not exactly right. And yet it would seem only fair that an itemized statement be given in each annual report sent to the members. Of course, it would be unnecessary to publish it in the bee-papers, but there is no question that the members would be interested in knowing just how much of the funds it was necessary to spend on each particular case in order to win it. We know the General Manager would be glad to do this, as it would be impossible for all to see his books for themselves, and thus learn it, as would be their right, if they so desired.

The members of the National Union have a perfect right to be proud of the work which that organization has accomplisht in the dozen years of its existence, but there remains much more to be done in other directions that will prove of untold value to bee-keepers all over this country. As Mr. C. P. Dadant well says on page 50—we must "*unite* our efforts and construct a Bee-Keepers' Union fifty times as strong and as far reaching as what we have at present." This we believe can only be done by amalgamating the two existing national organizations, and then *all* go to work to "crush the hydra of honey-adulteration"—the bee-keeper's greatest foe in the pathway to success.

◆

That Honey-Jumble Recipe.—From Gleanings we learn that the good women-folks that seem to "endure" so well living with Dr. Miller, have tried the honey-jumble recipe that we publisht recently, and Editor Root, after sampling them, says they are "as good as the best jumbles every made." (We'll have to take his word for it until we can afford to get a round-trip ticket to Dr. Miller's just for the purpose of eating jumbles with him! But we see the Doctor wrote Editor Root that he had sent him "the last of the batch," so that ends it!)

The following we take from the same editorial in Gleanings:

> It seems there was a slight mistake, probably, in the recipe. One of the ingredients was carbonate of soda 4 ounces, and it appears that it should have been 4 *pounds*. The whole recipe, then, with this correction, will read as follows:
>
> "Flour, 196 pounds; lard, 10 pounds; honey, 12 gallons; molasses, 3 gallons; carbonate of soda, 4 pounds; salt, 1 pound; water, 3 gallons; extract of vanilla, 1 pint."

Of course, the proportions in this recipe are too large for domestic use; and for the convenience of the women-folks it is reduced to the following:

"Two pounds of flour; 1½ ounces of lard; 1½ pounds of honey; 6 ounces of molasses; ⅝ ounce of soda; 1/6 ounce of salt; 1 gill of water: ½ teaspoon of vanilla extract."

If the honey is not of heavy body, increase the quantity slightly. Perhaps the wonen-folks would prefer to have this reduced to "cupfuls;" but as such a measure is very indefinite, we can get at the result more exactly by giving the figures in pounds and ounces, and I suspect it is important that the proportions be as nearly exact as possible. I believe it would be possible to use all honey instead of molasses and honey.

If all the women-folks can succeed as well as Dr. Miller's have done, this recipe is going to be of great value to bee-keepers. Every bee-keeper who has honey to sell ought now to be able to offer to his customers honey-jumbles, home-made, and they will sell like hot-cakes.

It might be well to call attention to the fact that jumbles will keep almost indefinitely. Indeed, they seem to improve with age. If they get a little dry, shut them up in a bread-crock, and then see how moist they will become.

◆

California Orange Honey.—Prof. Cook, while visiting Riverside a short time since, secured a fine sample of orange honey. The comb was white and the honey delicious. It is to be regretted that the orange honey comes there so early in the season. The bees at this time are so few in numbers that the product from this source can never be very large or important commercially. If the honey could be produced in large quantities, it would rival that of the sage, white clover, and the linden. So writes the Professor.

The Weekly Budget.

EDITOR THOS. WM. COWAN, of the British Bee Journal, and his good wife, are spending the winter in Placer Co., Calif., with their son.

MR. W. K. MORRISON, now residing on Bermuda Island, is suggested by Gleanings as a suitable person to go after Apis dorsata, if it is thought best to secure these bees for trial in this country.

MR. EDWIN BEVINS, of Iowa, wrote recently: "I am getting tolerably comfortable in health again, and hope to live to aid the new Union in its fight with honey adulterators and rascally commission-men."

MR. FERRIS E. GAINES, of Will Co., Ill., writes: "I like the American Bee Journal very much. There are frequently articles in it which alone are worth the subscription. The new spelling of some of the words ending in 'ed' is very sensible."

MR. C. P. MCKINNON, a bee-keeper near Marshalltown, Iowa, made us a very pleasant call recently. He has some 20 colonies, and runs for both comb and extracted honey, but mainly the latter. He sells his surplus in the home market at 10 and 12½ cents for extracted and comb honey, respectively.

MR. CHAS. KOEPPEN, a 5-out-apiary bee-keeper in Michigan, was pictured in the December Review, and also his 5 apiaries and honey-house. He has from 50 to 75 colonies in each apiary, and his crop of comb honey this year was about 8,000 pounds. He has achieved his present success through difficulties that would have disheartened a less persistent man.

MR. J. F. MCINTYRE, of California, is one of the largest bee-keepers in this country. Prof. Cook writes thus of him and his methods:

"I had the privilege, a few days ago, of spending a night with Mr. McIntyre, of the famous Sespe region, of Ventura County. Mr. McIntyre is not only one of the best bee-keepers in the United States, but he has one of the best apiaries, and one of the best plants that it has ever been my privilege to inspect. The apiary is located in a magnificent canyon. The hives are on a very gentle slope, and at the lower side is the extracting room. Mr. McIntyre has an extractor of his own construction which holds a large number of combs, and which reverses while in motion. He works entirely for extracted honey. He has a large, fire-proof honey-house, and is so fore-handed that he can hold his honey until the market suits him; thus he is always able to get a good price for his product. He aims to keep about 600 colonies, and so manages as not to go beyond this number. After he reaches the desired number, he returns swarms to the hive, taking out the combs, to build up weak colonies. He thus has, at the dawn of the honey season, his 600 colonies all vigorous and strong. By this method of management he often takes over 30 tons of honey in a single season. I think his crop a year ago was about 32 tons. He reports that the bees just about held their own last year. Mr. McIntyre is very careful not to extract so closely as to endanger his bees from starvation."

MR. E. C. WHEELER, of Marshall Co., Iowa, wrote us as follows Jan. 3, about the prospects for next season in his locality: "I have much hope for the coming season, as white clover had a new start the past season, and we are having a fair amount of wet weather this winter."

THE DOWAGER EMPRESS FREDERICK, of Germany, takes great interest in all the occupations of country life, and has lately turned her attention to bee-keeping, which she considers a most useful industry for the peasant population. In order to encourage bee-keeping she has become the honorary President of the Weisbaden District Bee-Society. A subscriber sends us this bit of news.

HON. SYDNEY E. FISHER, the Dominion Minister of Agriculture, attended one session of the Ontario convention at Toronto in December. He delivered a very cordial speech, showing his interest in bee-keeping as a branch of the great work of his department. The bee-keepers of Ontario have much reason to be grateful to their Government for the substantial interest it takes in their pursuit. Would that our Government were as anxious to aid its bee-keepers.

MR. J. S. SCOTT, of Utah, wrote thus Jan. 9: "I gladly send you $1.00 as the membership fee to the New Union, with the privilege of calling for any amount hereafter required to prosecute honey adulterators and other swindlers.... Talk about the home market! I think we produced in our three apiaries more comb honey last year than could have been sold in Utah for home consumption. Hence we are compelled to sell in the East....I had the usual experience with swindlers last year—Wheadon and all the rest—but I did not bite."

MRS. A. J. BARBER, of Montezuma Co., Colo., we believe is the only woman bee-inspector on this continent. It is quite a distinction. She was appointed inspector for her county last spring, and has made a pretty thorough canvass of the bees kept in her domain. For thoroughness and conscientious work, commend us always to the good women. (This will not be construed as a reflection upon the splendid work done by Inspector McEvoy, of Canada, and others, for it is not so intended.)

PROF. COOK, in a letter from Los Angeles Co., Calif., which we received Jan. 16, said:

"While we have not yet enough rain to insure a good honey crop for the coming season, the outlook is very hopeful. We are already within one or two inches of the amount of last year, and have within half enough to make the outlook or prospects very favorable. Thus it is to be hoped that we shall have a good season in 1897, and that the Exchange will have plenty of work to do."

MR. J. J. MARSHALL is one of Wisconsin's large bee-keepers, as will be found by the following item, which appeared in a local newspaper:

"J. J. Marshall was here on business Monday. In company with L. Dalton, they took and sold from their bees, 18,500 pounds of extracted honey the past year. This means that they used about 60 ordinary barrels to hold it."

Mr. Marshall has been in the bee-business 8 years, and has had but one year of failure—that was 1893. He feels that adulteration of honey and dishonest commission men are to be dreaded far more than foul brood in Wisconsin. That may be true, and yet *all* deserve such laws that bee-keepers can help to enforce when necessary in order to protect themselves.

☞ See "Bee-Keeper's Guide" offer on page 45.

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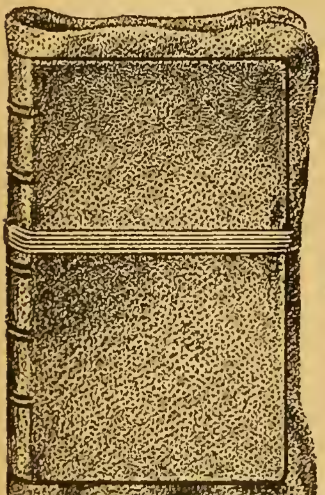

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General Items.

Sweet Clover—Small Honey Crop.

I am in great hopes that sweet clover will be taken off the black list this winter. If you can help us any, I wish you would.

I had a small honey-crop, and got a small price for it, but I will stick to the Bee Journal. I have 97 colonies in the cellar at present, apparently doing well.

HENRY STARK.
Shawano Co., Wis., Dec. 30.

Season Good in Early Part.

I cannot get along without the American Bee Journal. Last season was very good up to July, when it slackened down considerable, but the fall flow helpt me out again. I got 956 pounds of comb honey all together, and I had plenty of swarms through the latter part of May and June. I am wintering 52 colonies and 4 nuclei, which have plenty of stores, on the summer stands.

HENRY K. GRESH.
Elk Co., Pa., Dec. 29.

Honey-Plants Looking Well.

Bees are mostly in fine condition for winter, as what little honey they gathered the past season was gathered in the fall, after the fall rains set in, and most of the bees are strong in numbers and heavy in stores. All of our best honey-plants are up and looking well. If we can just have a few good rains the rest of the winter and spring the honey crop is assured for 1897. Long life to the American Bee Journal!

L. B. SMITH.
Lampasas Co., Tex., Dec. 29.

Abundance of White Clover.

It has been less than an average season here for honey, but the prospects are fine for next season, as we shall have an abundance of white clover.

I was quite successful with my exhibit at the county fair the past fall, securing three first premiums—on nucleus of bees, extracted honey and foundation, and second premium on comb honey.

F. S. TINSLAR, D. D. S.
Kankakee Co., Ill.

Results of the Past Season.

I think my bees have done well. I had been keeping bees in the box-hive for several years, and last spring I had 6 colonies. I then purchast 6 dovetail 10-frame hives, and put the new swarms into them, using half sheets of foundation. Not having an extractor, I had to build up 4 of them 4 stories high. I borrowed an extractor from a neighbor bee-keeper, and extracted 700 pounds from the 6 colonies—300 of white clover and 400 pounds of Spanish-needle; it was all fine honey. The white clover is in fine condition for next year. My bees are in good condition to go through the winter. They are hybrids, and workers, too. I have 9 colonies in dovetail hives, and three in the old hives. I owe my success to the Bee Journal, as I subscribed for it when I bought the hives. I couldn't get along without it now. I think the Editor has done a good thing in getting after the fraudulent honey commission men. I am well pleased with my first year's work.

W. L. SMITHEY.
Monroe Co., Mo., Dec. 30.

A Horticultural Bee-Keeper.

I have 30 colonies of bees, mostly hybrids. I am running principally for increase. I got only 400 pounds of comb honey this year, and yet I think this is a fair bee-country. Last spring I started with 14 colonies and increased to 30. They

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Now it seems to us here is a splendid chance for any bee-keeper to supply his home demand after his own crop is all sold. Or, why not begin now to create a local honey-trade? Order one 60-pound can first, and start out among your neighbors and friends, and see what you can do. You ought to get at least 12 cents per pound in 5-pound lots, or 40 cents for 3 pounds. Some may be able to do even better than that, though we think that enough ought to be sold at these prices to make a fairly paying business out of it. Give it a good trial. Push it. It may grow into a nice winter's work for you.

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all went into winter quarters heavy in stores. I am wintering them on the summer stands, the hives covered with short boards sawed two feet for the purpose. I keep the snow heapt up around the hives, leaving the entrances open. This has been my method, and it has workt well so far; so when a thing works well, that will do.

I am an old soldier, and must engage in some light out-door work. I have handled bees all my life. I have come up all the way from the hollow log hive to the improved hives of to-day, but I never thought of getting right down to business till within the last two or three years. I am horticulturally built, and also love to handle bees. I read Langstroth's book 30 years ago, but never until I saw the honey exhibits at the World's Fair did I get so interested in bee-culture as I have been since. I was there during the entire Fair, in charge of our horticultural exhibit. I am not afraid the bees will do me or my fruit-trees any damage. S. W. MAXEY.

Kittitas Co., Wash., Dec. 26.

Deep Snow and Windy.

I have three out-apiaries. I've had bees for seven seasons, the last being the best yet. My average from 142 colonies was 34 pounds per colony. I keep all my bees in dovetail chaff hives, except 26 that are in Bristol hives. I rear leather-colored queens, which are the best that I have tried, and I have tested quite a number. It has been snowing the past 48 hours; the snow is two feet deep on the level, and the wind is blowing hard, filling the roads with snow. THAD. H. KEELER.

Westchester Co., N. Y., Dec. 24.

Report for 1896.

I began in the spring with 14 colonies—blacks and hybrids. I had 6 swarms, and 300 pounds of basswood comb honey. There was white clover, also many wild flowers, but no nectar in them. Basswood trees were very full of bloom from the 1st to the 20th of June, but bees could work on it only one week, because it was too damp and chilly most of the time. Basswood is the principal dependence here, but alas! the woodman's ax is ruthlessly robbing us of this best of all honey-plants. I have been a subscriber only 1½ years, but I have learned to like the Bee Journal and the editor more and more. Long may they live to cheer the hearts of the bee-keeping fraternity, and battle for the right.

Platte Co., Mo. R. T. ROSE.

"Honey Exchange" Suggestions.

I was considerably interested in the report of the Chicago convention. I am not a member of any organization, nor do I know that I shall connect myself with one. But it seems to me that the reason our bee-keepers failed to get returns for the honey shipt to the commission men, was not on account of a lack of organization on their part, but because they failed to use common sense in business, and *know* their men before making a consignment, either by letters of inquiry, or of reference. A man who will ship a carload of honey to an unknown firm, except through his advertisement in a paper or a richly worded and attractive circular through the mail, certainly comes short in his make-up, or, to express it in a more charitable and brotherly way, he is anticipating a hundred years hence, when in the Millennial Reign of Christ we are told that "the *earth* shall be filled with the knowledge of the glory of the Lord as the waters cover the sea."—Heb. 2:14.

A suggestion: It would seem to me that the most effective form of organization would be to have a common center, or "Honey-Exchange," if you prefer to name it such, in a central city, like Chicago. At that honey-exchange have a thorough business man, who is already associated with bee-keepers, located on a salary. His duties shall be to keep posted through correspondence with bee-keepers—members of the Association in particular—in all parts of the country: 1st, the exact condition of the honey market in their particular locality; 2nd, the outlook of the incoming honey crop, especially as to its probability of congesting the local market, and here the exchange man can prove his ability, in such suggestions to shippers as will enable those living close to a congested market to ship to a locality where the yield is not so heavy that season; 3rd, by knowing how much honey each member has, or would have, for shipment, and with a knowledge of the consumption of each market annually, it would be more easy to get a uniform figure for the year's product, by judicious shipments; and, 4th, being in close touch with every large producer, and with producers living in every city, a knowledge of the commission men could soon be gained, that would lessen the losses through dishonesty.

These suggestions will bear enlarging, and, in fact, new ones may very profitably be added. JOHN WILCOCK.

Philadelphia Co., Pa.

* * *

Report for 1896.

In the fall of 1895 I had 46 colonies in chaff hives, and wintered 39, but two were queenless. I increast to 60 colonies, artificially, and took 1,800 pounds of extracted honey—600 from clover, 1,100 from basswood, and 100 pounds from fruit-bloom. I fed 100 pounds of sugar for winter stores. How is that for Buffalo?

WM. H. MCKINLEY.

Erie Co., Pa., Jan. 9.

* * *

Not an Entire Failure.

I started in the spring of 1896 with four colonies of Italian bees, had one natural swarm, and 137 pounds of comb honey. We think it first-class, being from alfalfa and spider-plant, with a few wild flowers. My bees are in fair condition, wintering on the summer stands. I have been reading the Bee Journal for 15 months, and would not attempt to keep bees without it.

P. R. HOBBLE.

Southwest Kansas, Jan. 11.

* * *

Fair Season in 1896.

The honey season of last year was very fair in this vicinity. From four strong colonies, spring count, increasing to 10, I took off over 700 pounds of surplus honey, ½ of which was No. 1 clover honey, the remainder first quality amber. From one young prime swarm I took 4 supers of 32 sections each, all prime honey, perfectly sealed, with the exception of one super in which there were 10 sections imperfectly sealed.

I put the bees into the cellar Nov. 6 in good condition. My bees are blacks—equally as good for their fighting qualities as their honey-gathering. L. J. PECK.

Anoka Co., Minn., Jan. 11.

* * *

A Case of Swarming.

I practice clipping queens' wings in the spring, and did so last spring. When breeding was well started I found one hive that contained nothing but drone-brood, even in worker-comb. The queen was probably a very fine one, but probably reared late in the fall before, and not mated.

May 15 I hived a swarm on old combs, and placed it on the stand where the hive from which it came stood. June 23 a swarm came from it and returned, as I was away, and the old queen, being clipt, was probably lost, for on July 4 a swarm came from the same hive, and after pulling off the head of the drone-laying queen, I hived them in her hive, and all seemed well pleased. But what surprised me was to have a swarm come from the hive these bees came from, the three succeeding days, making four swarms from the same hive, four days in succession, and I put them all, with the bees, with the drone-laying queen, and they all seemed satisfied and did good business in gathering honey. I have had something to do with bees for nearly, or quite, 70 years, but never knew a case like this in all my experience.

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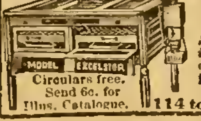

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* * *

Thinks Weevil Injure White Clover.

I see a good deal in the Bee Journal about bees not working on white clover. I think the reason is they cannot get the honey. It is there all the same. We find in almost every blossom a weevil which prevents the bees getting the honey. Before the weevil began to bother we got 3 to 5 bushels of seed per acre; now we get but ½ to 2 bushels per acre. SOL HARPST.

Mercer Co., Pa.

* * *

Good Results in a City.

EDITOR YORK:—I am glad to hear that the next national convention is to be held in Buffalo this year. I would like to have you call upon me when you come, and see my bees. They did very well last year. I started with 16 colonies and increast to 20. I extracted about 1,300 pounds, and took about 100 of comb honey. I think a crop like that is pretty good for being in the heart of a city like Buffalo.

I winter my bees on the summer stands, with outside cases, which are packt with straw and one thickness of burlap over the frames, with chaff cushions on top. I have lost but two colonies in three years wintered in the same way.

The bees had a good flight on New Year's day, and seemed to be in fine condition.

I think the Bee Journal is just what every bee-keeper ought to have, if keeping but 1 or 100 colonies. M. M. RICKARD.

Erie Co., N. Y., Jan. 11.

[Thank you, Mr. Rickard, for your kind invitation. If we have time, and all being well, we should be very much pleased to visit you during the next convention.—EDITOR.]

* * *

An Experience with Bees.

A little more than 25 years ago (the last year of my living in New York before I moved to this State) I bought a colony of bees in a box-hive, and the experience I had that season, with that colony and one that came from it, is all I ever had until last spring, when, very much against my inclination at the time, I was obliged to take three colonies of bees—two good ones and one poor one—on a debt. I had never seen a frame of comb and bees taken from a hive, and didn't know one cell from another. But I thought I would make the best of my purchase, and try to get my money out of it. I found my old book—"Quinby on the Honey-Bee"—that I bought when I had the colony 25 years ago, which had been entirely useless all these years—and went to studying it. Then I subscribed for the American Bee Journal, which I also took 25 years ago, and to it I owe much of my success, for in every number I find something I need to know. When I had occasion to write to our good editor, I sent him the names of all the bee-men that I thought did not take our paper. All through the summer, and at the present time, let me work ever so hard on my farm, when Thursday night comes, and the Bee Journal with it—one as regular as the other—I never make a practice of retiring until I have finisht the paper.

Last fall I got "A B C of Bee-Culture," and I was never before so interested in any business in my life. I had been in a very monotonous routine of farm work, for nearly 25 years, and this novel employment opened up to me a new department in the old world around me, that I had hardly ever noticed before, and I was delighted.

I also found, in reading the Bee Journal, that I had entered a brotherhood, all allied in sympathies and interests, not so great in numbers as in extent of habitation, and all kindly disposed toward one another; and it strikes me that is an outgrowth of the business, that men who are engaged in investigating the works of the Creator, and work along with Him, become kindly disposed, and more and more in line with Him.

About the right time I got in correspondence with a good supply dealer, who furnisht me with the necessary supplies, all of one pattern, 8-frame dovetailed hives. My old hives were of different shapes and sizes, were quite old and poor, and the combs very black. In the course of the season I got the bees all out of the old hives and piled them up by the woodpile. I transferred the bees all into the new hives, with new brood foundation. So now, instead of what I started with, in the spring, I have 10 good colonies, all on new combs, and in new hives, all of the same make, all painted white, and standing in a straight row, under the south side of a row of large locust trees, a few yards south of my house. I also got about 416 pounds of extracted honey, and 85 pounds in sections, besides quite a number of sections partly filled. The man of whom I got the bees helpt me with his advice, and started me out, but nearly all the work was done by my own inexperienced hands, assisted, at times, by members of my family.

Pretty late in the fall I examined all the hives, and estimated that the lightest had about 22 pounds of honey, and the heaviest about 32. I put a Hill's device on top of the frames, then a piece of burlap, then an empty half story, and filled it with dry leaves, wintering on the summer stands; the hives are 18 or 20 inches apart. A little later on I took corn-fodder and laid it down straight on the ground against the north side of the row of hives, packing it down close, and piling it up as high as the tops of the hives. Then I took some more, and stood it on end, letting it lean against the other, and over the tops of the hives, having something the form of a shed over them. Then, going to the south side of the row, I packt the spaces between the hives with old hay, and partly covered the hay with stove wood, that it might not get out of place.

I think I have a good location. It is on the second bottom of the Big Blue river, near the base of the south side of a high bluff. My bees did nothing the forepart of the season—I had to feed to keep them from starving. Some who did not feed lost their bees. The surplus was stored between the the middle of August and about Sept. 20 or 25. C. G. Beach.

Marshall Co., Kans., Jan. 6.

Bees Wintering Well.

I increast my bees from 21 to 41 colonies, and lost 2. I got about 600 pounds of comb honey and 200 of extracted—half white clover and half vine maple. I had a colony of Italians that swarmed May 26, and the new swarm swarmed June 26, and gave me 84 pounds of comb honey. Bees are doing well so far. M. A. Bradford.

Multnomah Co., Oreg., Jan. 9.

Bee-Keeping in Manitoba.

No doubt many readers of the Bee Journal consider Manitoba to be in the Artic regions, and therefore no place fit to keep bees. To such I may say that I have kept them here for 10 years, and I find it a much better place for them than Old England, where I kept bees for 20 years, and had to feed some colonies each year or lose them. I have not had to feed one pound of syrup in Manitoba.

The season of 1896 was the poorest yet experienced here. Golden-rod failed to yield any surplus honey for the first time; and that and wild mint are the chief honey-flowers at present, there being no clover here yet except what I grow myself, which is only about one acre. We have no basswood. The honey is almost all from wild fruits and flowers at present. But I am looking for greater results from clover if the farmers could be persuaded to grow it. Alsike and white flourish well where sown. I saw bees visiting Alsiko as late as October.

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I winter my bees in an outside cellar or cave, the temperature of which is not nearly so high as bee-writers advocate. Last winter mine was from 2 to 14 degrees above zero most of the time, and every colony came through safely. I put 28 in. the beginning of November, and placed them all out the first week in April. One year they were gathering pollen April 4. Another year it was April 21 before I could put them out.

In this climate bees are not subject to dysentery; moths do not trouble at all, nor is there any honey-dew.

When extracting honey, about the end of September, I found a nice-colored queen upon the first frame taken out, which I set against the outside of the hive, and got hold of the next frame upon which was another queen, of a darker color.
J. Gatley.

Manitoba, Canada, Dec. 26.

A Lady Bee-Keeper's Report.

There are about 500 colonies in this county (Montezuma). I have 150 colonies in two apiaries. Our home apiary of 65 colonies produced 8,000 pounds of extracted honey, altho I had to destroy 13 colonies and treat several others for foul brood. The out-apiary of 70 colonies produced 5,000 finisht sections of honey, and 2,500 pounds of comb honey, in half-depth extracting frames, which we sell by the frame in the home market. Besides the comb honey, we have an increase of 17 good, strong colonies in the out-apiary. All have hives well-filled for winter use. Honey is cheap—best white sections, 3 for 25 cents.
Mrs. A. J. Barber.

Montezuma Co., Colo., Jan. 13.

Report for the Past Season.

I promist to report when I got a crop of honey. I can hardly call it a crop, but better than nothing. I took my 50 colonies from the cellar last spring alive—all but one or two—but they spring dwindled down below 40, and they were mostly weak. They commenced to build up on spring bloom, then in basswood bloom they did well for a few days, then all stopt until red clover bloom, then they filled up well for winter, all but two or three late swarms. I increased to 60 colonies, and packt 41 on the summer stands, the remainder I put into the cellar. All appear to be wintering well. Those out-doors have a jubilee occasionally—one on New Year's day. I think the prospect good for a good season in this part of the country. White clover has come in thick, and it appears to be wintering well.

The past year I got for my part about 700 pounds of honey, and have a major part of it on hand yet. It brings only 12½ cents per pound. For the most that I have sold I got 14 to 15 cents. A. F. Crosby.

Franklin Co., Iowa, Jan. 12.

Wild Parsnips Again.

On page 806, P. N., in referring to my article on wild parsnip, asks, "How long will tame parsnips have to run before they become poisonous?" Years ago, when I was a young man, I was told that if parsnips were allowed to grow a few years without being molested, they would become poisonous, and I supposed it was true until a few years ago one of my neighbors had a bed of parsnips in his garden, and the next spring he built a barn and enclosed the parsnip bed in his yard; but just outside of the fence a few parsnips came up and went to seed, and the seed was scattered, and they grew there to my knowledge 10 years or more, being self-sown, and they grew seed every year. One day the man told me if I wanted any parsnip seed to help myself, for there was plenty of it. I told him that I had always been told that it was poison after growing wild as long as those had. He laught, and said that all the parsnips he had raised and ate for years was from seed he gathered from that place, so I got my seed from the same place for years, and raised good parsnips, and am alive yet, and never felt any bad effect from them.

Dr. Miller, in his answer to the above question, cites a case of a physician who had eaten a full meal of wild parsnip with no bad results. I can cite two cases where the result was quite different. One of my neighbors, while working in his field, pulled up a root of what is known here as wild parsnip, and gave to his horse. In a short time the horse was taken sick and died in a few hours. The other case, a young man picked up a root that he had plowed up, and ate some of it. In a few moments he was seized with a burning sensation in his throat and stomach, and severe pain. A physician was called, and he named it a case of poison from eating wild parsnip. I am satisfied from what Dr. Miller says, that there is no wild parsnip in the cases I refer to, but that it is some other root, therefore next summer I will send a sample of the plant to the Bee Journal, and ascertain its true name. There is one thing I do know—it furnishes a large quantity of excellent fall honey. S. B. Smith.

Stevens Co., Minn., Jan. 9.

Did Very Well Last Year.

I started in last year with one colony, and have now 23—a good many of which I got from trees. I did very well last year. F. Matthai.

Napa Co., Calif., Jan. 14.

Kept Bees 20 Years.

I have kept bees for 20 years; with few years excepted they have been profitable. The past year has been almost a total failure. Through August they would have died had they not been fed. I have 34 colonies in my home yard, and an interest in another. Jeremy Greene.

Watauga Co., N. C., Dec. 22.

A Very Poor Season.

We had a very poor honey season last year. From 32 colonies we did not get more than 400 pounds of honey, as the weather was too changeable. First we had too much rain, then it was warm, and then it changed to cold again. But we hope to have a better season this year. Mrs. J. Knuppel.

Kings Co., N. Y., Jan. 12.

A Mexican Report.

Last year's honey season, as far as one can speak here about a honey season, was not so good as before. The rainy season was unusually long, and now we have remarkably long and wet Northers. I have not seen such a wet year since I came here, five years ago. I am now preparing for the crop of orange and coffee honey—the most delicious in the world. They are beginning to bloom already, and most probably we will have a big crop from both for 1897.

I am trying, too, to explain modern bee-keeping to Mexicans through the agricultural paper, "El Progreso de Mexico." It is hard work for me, as I am a beginner in bee-keeping, and in Spanish language, but some time I hope to reap the fruits of my efforts. I am selling mostly extracted honey, which at present sells better than comb. I am now watching my bees for the bee-martin. I think they come down from the United States, as bees cannot fly there any more, and I only see them here in the winter months. F. Bussler.

Orizaba, Mexico, Dec. 29.

A Colony in a Bedroom.

On Dec. 10, 1896, I bought two black colonies of bees in box-hives, transferred them to partly-drawn combs in dovetailed hives, which had no bee-bread. I took honey from box-hives, mashed and strained it, thinned it with water and fed it. Dec. 24 I lookt into the hives and they had about 15,000 capped brood each. They are drawing out comb and building one new one, having it as large as my two hands. Every cell is worker. I keep them in a warm bedroom upstairs, where the stove-pipe goes through the room. I carry them out every warm day and give them a flight.

New York.

A Report—Sowing White Clover.

We have had a fine fall and no winter so far. Bees have a good supply of stores for winter, and gave us some dark honey in the supers. The dry, hot weather nipt the first crop. We do not have much chance for a good crop here in a dry year. We have had a good deal of rain this winter, and that will help out for next year.

I have just been reading Dr. Miller's answer to H. C., about how much white clover seed to sow per acre. I have sown clover seed for 40 years, and the best results come from sowing 60 pounds on 8 acres; that is 7½ pounds per acre.

Cowley Co., Kans., Dec. 31. S. Stout.

Results of the Past Season.

Out of 41 colonies I came through last winter with 40 medium ones, and increast to 73 by natural swarming. I got 1,200 pounds of comb honey in one-pound sections, and sold it in my home market for 15 cents, or if they take 100 pounds or more, 14 cents in trade, or 13 cents in cash, by the case of 24 sections. The dandelions and white clover did not yield any honey last spring, and the bees had all their old honey used up. I had to melt some sugar and feed a few new swarms. The last of June the basswood opened, and the first of July the bees filled their hives for winter, and stored some surplus, but no fall honey to speak of. I think they are wintering well, down cellar packt on top with leaves, with the entrances the same as on the summer stands. Geo. H. Aurinoer.

Meeker Co., Minn., Jan. 1.

"Commercial Ratings" Unreliable.

Editor York:—I have kept track of your exposures concerning the Wheadon outfit, and also the Atchley's editorial relating to Wheadon's rating with Bradstreet's. Possibly what I have to relate may throw some light on the methods of a certain commercial agency:

A prominent druggist of this town, and a thoroughly reliable man, received a letter from a commercial agency, a few days since, asking him to send them a detailed account of the commercial standing of a certain business man of this place. They tendered no pay for the service asked, beyond a stamp for reply!

Our druggist replied that he was not in the business of writing up his neighbor's character, and that they would have to seek elsewhere for the information required. In speaking of the circumstance to my husband, he said:

"They tried the same dodge on me three years ago, and got the same answer. What a contemptible system it is, though. Now, suppose I had been an enemy of this man, what an opportunity to have ruined his business reputation. On the other hand, had I been his most zealous friend, here was a chance for me to have given him a high, but false, rating."

To say the least, if this is the way the commercial agencies obtain their ratings, they are not to be depended upon, either one way or the other. Hence, "agency ratings" should themselves be rated for just what they are worth, and that is—*nothing*.

I send this in the interest of right and justice. Mrs. L. E. R. Lambrigger.

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HONEY and BEESWAX

MARKET QUOTATIONS.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed: both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

Chicago, Ill., Jan. 19.—Fancy white, 12@13c.; No. 1, 10@11c.; fancy amber, 8@10c.; No. 1, 7@8c.; fancy dark, 8c.; No. 1, 7c. Extracted, white, 5@7c.; amber, 5@6c.; dark, 4½c. Beeswax, 25@27c.
Very little activity in the market.

Philadelphia, Pa., Dec. 31.—Fancy white comb, 13-14c.; No. 1 white, 11-12c.; fancy amber, 10-11c.; dark, 8-9c. Extracted, white, 6-8c.; amber, 4-5c.; dark, 3-4c. Beeswax, 26c.

Comb honey arriving freely and market overstocked at present.

Albany, N. Y., Dec. 31.—Fancy white, 12-13c.; No. 1, 11-12c.; fancy amber, 9-10c.; No. 1 dark, 8-9c. Extracted, white, 6-7c.; dark, 4-5c.
The receipts of both comb and extracted honey are very large, and prices are somewhat lower. We have an ample stock of all styles except paper cartons weighing less than a pound.

Indianapolis, Ind., Dec. 31.—Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.
Demand is fair for grades quoted, but no demand for inferior grades.

Boston, Mass., Dec. 31.—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Milwaukee, Wis., Dec. 31.—Fancy white, 14-15c.; No. 1, 12-13c.; No. 1 amber, 8-10c. Extracted, white, 6-7c.; amber, 5-6c.; dark, 4-5c. Beeswax, 22-24c.

New crop of honey begins to come forward. The demand is very poor and quotations almost nominal. Weather is very warm and the consumption of honey is very small. Plenty of fruit, and hence the appetite is satisfied with same in preference. Later on we expect an improved demand for honey of all kinds.

Cleveland, Ohio, Dec. 31.—Fancy white, 14½@15c.; No. 1 white, 12½@13c. Extracted, white, 6@7c.; amber, 4½@5½c. Beeswax, 22@25c.
There is not very much honey in our market Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

New York, N. Y., Dec. 31.—Fancy white, 11@12c.; fair white, 9@10c.; buckwheat, 7@8c. Extracted, white clover and basswood, 5@5½c.; California, 6c.; Southern, 50c. per gallon. Beeswax in fair demand at 26@27c.
The market is quiet and inactive. Demand light and plenty of stock on the market.

Cincinnati, Ohio, Dec. 31.—Comb honey, best white, 10@14c. Extracted, 4@6c. Demand is slow; supply is fair.
Beeswax is in fair demand at 22@25c. for good to choice yellow.

San Franciaco, Calif., Jan. 13.—White comb, 10-11c.; amber, 7-8c. Extracted, white, 5-5½c.; light amber, 4-4½c.; amber colored and candied, 3¾c.; dark tule, 2¾c.
Beeswax, fair to choice, 23-25c.

Kansas City, Mo., Jan. 20.—Fancy white comb, 14c.; No. 1 white, 13@14c.; fancy amber, 12-13c.; No. 1 amber, 11-12c.; fancy dark, 10-11c.; No. 1, 8-9c. Extracted, white, 6-6½c.; amber, 5 5½c.; dark, 4-4½c. Beeswax, 25c.

St. Louis, Mo., Dec. 30.—Fancy white, 14c.; No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@10½c.; fancy dark, 9@9½c.; No. 1 dark, 7@8c. Extracted, white, in cans, 6@7c.; in barrels, 5@5½c.; amber, 4½@4¾c.; dark, 3½@4c. Beeswax, 26½@27c.

Baker stock of extracted honey, 4@5c; stock very scarce. Fair receipts of comb. Beeswax in good demand.

Minneapolis, Minn., Dec. 31. — Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Detroit, Mich., Jan. 9.—Fancy white, 13-14c; No. 1, 12-13c.; fancy amber, 11-12c.; No. 1 amber, 10-11c.; fancy dark, 9-10c.; No. 1, 8-9c. Extracted, white, 5½-6c.; amber, 5c.; dark, 4-4½c. Beeswax, 25-26c.

Buffalo, N. Y., Jan. 22.—Fancy comb, 1-pound, is selling fairly well at mostly 10c.; occasionally 11c.; No. 1, 8-9c.; occasionally 10. Other grades, 8-4c., according to color and general condition. Extracted, 4-5c. Sales of any grade cannot be made fast unless prices are cut in accordance.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

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C. C. CLEMOMS & Co., 423 Walnut St.

Buffalo, N. Y.
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Hamilton, Ills.
CHAS. DADANT & SON.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
WILLIAMS BROS., 80 & 82 Broadway.

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WESTCOTT COM. Co., 213 Market St

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CHAS. MCCULLOCH & Co., 380 Broadway.

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C. F. MUTH & SON, cor. Freeman & Central avs.

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Bound in cloth, postpaid, $1.00; or clubbed with the BEE JOURNAL for one year—both for only $1.75; or given free as a premium for sending us *two* new subscribers to the BEE JOURNAL for a year at $1.00 each.

Convention Notices.

NEW YORK.—The annual meeting of the Ontario County, New York, Bee-Keepers' Association will be held at Canandaigua, N. Y., Jan 29 and 30, 1897. The usual cordial invitation is extended to all interested in apiculture, especially to the bee-keepers of adjoining counties. RUTH E. TAYLOR, Sec.
Bellona, N. Y.

IOWA.—The seventh annual meeting of the Eastern Iowa Bee Keepers' Association will meet at Anamosa, Iowa, Feb. 10 and 11, 1897. A corps of experimenters have been doing special work in the apiary, and will report. Lay all cares aside, and come and enjoy the good things prepared for you.
Andrew, Iowa. F. M. MERRITT, Pres.

WISCONSIN.—The Wisconsin State Bee-Keepers' Society will meet Feb. 3 and 4, 1897, in the Capitol Building, Madison. The meeting will be largely devoted to discussions of topics that are of present interest to Wisconsin bee-keepers. The editor of the American Bee Journal will favor the meeting by a valuable essay on marketing honey for 1897. The Secretary's report on foul Brood and securing a law to suppress the disease, will be interesting. Any question desired to be discussed will be sent to the Secretary.
Platteville, Wis. N. E. FRANCE, Sec.

ILLINOIS —The annual meeting of the Illinois State Bee-Keepers' Association will be held at the State House, in Springfield, Feb. 24 and 25, 1897. The State Farmers' Institute meets the same week—including all the State live stock associations—and our Executive Committee, along with them, arranged for this date, in order that the Legislature might be in good working condition. (We all know what for.) There will be an effort made this winter to get a Pure Food Bill past, and that means bee-keepers want a hand in it, to see that the adulteration of honey shall cease FOREVER AND EVER. Two years ago we succeeded in getting an Anti-Adulteration Bill through the Senate, but it failed in the House, only for want of push. Let bee-keepers throughout the State impress upon their Representatives the importance of such a bill, and come to our meeting to refresh their minds on the subject.
Railroad rates will be no greater than a fare and a third, which will be announced later. Our programs will be issued along with the other State Associations named above. JAS. A. STONE, Sec.
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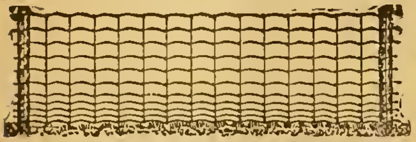

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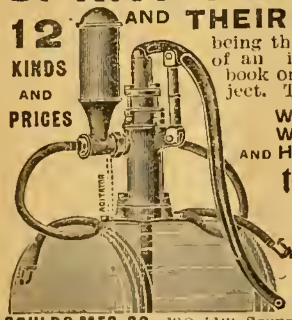

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Hill Smokers, 40c each; by mail, 60c.
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37th Year. CHICAGO, ILL., FEBRUARY 4, 1897. No. 5.

Contributed Articles

Getting Queens Fertilized at the Least Cost.

BY W. Z. HUTCHINSON.

The greatest expense attending the rearing of queens is in getting them fertilized. I think it safe to say that virgin queens could be reared for 10 cents each. As a rule, a colony will build a dozen queen-cells at one batch—they will, if rightly managed, and the queens will be good ones, too. The colony will not be more than 10 days in doing it. A good colony can certainly average a dollar a week building queen-cells. Of course, a colony cannot go on week after week all summer long building queen-cells, but it can build at least three good batches, and then it can be dropt from the list and another taken. In time, this colony can be used for cell-building again. It could be used right along by giving it plenty of young bees or brood, but it is exactly as well to give it a queen and let it rear itself some more brood, and turn some other colony to the work of cell-building. By employing proper methods to get the cells built, and taking them away when sealed over and the queens have commenced to "color," and hatching them out in a lamp-nursery, there is no trouble in rearing virgin queens at 10 cents each. I would like no better job than that of rearing virgin queens at that price.

It will be readily seen that the cost in queen-rearing comes in getting them fertilized and holding them until needed if it should happen, as it frequently does, that there is not an immediate demand as soon as they begin laying. In queen-rearing it is the usual plan to employ the same frames as are in use in the apiary. This is an advantage in many ways. The same kind and size of hives may be used, and when the season is over there is great convenience in uniting the nuclei. If the nuclei gather much honey, it is easy to extract it if it is in the regular-size combs. All these are advantages that cannot be denied, but the great amount of bees that are used to stock one nuclei makes the cost of getting queens fertilized come pretty high. Little combs 4 or 5 inches square have been tried, using them in little boxes of the right size, and they work all right, except that such small colonies are quite likely to swarm out, and follow the queen when she takes her wedding-flight. More likely, still, are they to swarm out after the queen has filled the combs with eggs and there is no more room for her to lay. The latter difficulty is easily remedied by placing a piece of queen-excluding zinc over the entrance after the queen begins to lay.

I have used with the best of resuts, the ordinary 4¼x4¼-x1½ section-boxes for frames, and the old-style, Heddon super for a hive. I save the unfinisht sections that are left at the end of the fall season. These are about half drawn out and partly filled with honey. I use the regular bottom-board of a hive that has a rim of a bee-space height around three of its sides, putting another strip at the end where the entrance usually is. This makes a rim all around it. Strips are then put crosswise at such points that they will meet the partitions in the case. Strips are also nailed to the upper edges of these partitions, bringing them up flush with the top of the case. A movable partition is also put in the center of each apartment, thus dividing it into two, and making eight little hives in each case. Pieces are nailed to the upper part of the bottum-board to meet these division-boards and make each little hive bee-tight. A little board cover is also made for each little hive, and then a regular hive-cover laid over all to keep out the rain, and to prevent these little covers of thin boards from warping. These extra covers are needed, because if all eight of the nuclei were opened at the same time the bees would be crawling back and forth ; and if one were queenless the bees would be coming over into the nuclei that had a queen. Queens might also, possibly, go from one nucleus to another and thus be destroyed. A separate cover for each prevents all this.

Entrances are made by cutting out a portion of the rim around the edge of the bottom-board ; about an inch is cut out for each entrance, and each is furnisht with a slide of bee-zinc that can be put in place when the queen has been fertilized. In fact, this slide is kept in place most of the time, it being removed only when there is a queen of the right age to fly. These guards are a great barrier to the entrance of robbers. It seems to be almost impossible to have one of these hives robbed when these guards are in place, I put two entrances on each side and as far apart as possible, and the number of queens lost is very few.

To stock these little hives, three sections of combs are put into each apartment. This brings the bees all in a close, compact cluster. A caged *laying* queen is then put into each apartment, and the case, without the bottom-board, is set over a strong queenless colony. Every bee-keeper knows how the bees will crowd into those sections and gather about the queens. I then carry away the case and set it on the bottom-board. Do this just at night when the bees are about done flying. As soon as it is too dark for the bees to fly, release the queens. There is no trouble about their being accepted. I never lose one in this way. By the next morning the queen has begun to lay, and the majority of the bees will adhere to that location. Queenless bees are usually ready to give up their location for a new one where there is a queen. When larvæ begin to appear in the combs it is safe to take away the queen and to use the nuclei the same in all respects as is the case with ordinary nuclei that are larger. Laying queens instead of virgins are used to start the nuclei, as the bees are so much more inclined to stay with a laying queen than with a virgin.

These little nuclei are so easy to manipulate. It is seldom necessary to use smoke ; they seldom kill a queen even if she is a virgin, and queens can be found so quickly and so easily. If there is a dearth of orders for one or two weeks, or longer, as sometimes happens, there are not a pound or two bees and two or three frames of brood and honey standing idle, caring for one queen.

To unite in the fall, simply take off the covers and remove the bottom-boards, and stack up the cases four or five high, and when they are all nicely united, shake them off upon combs of honey and give them a queen. As a rule, however, such bees as these—those that have been used in nuclei all summer—are of little value as "winterers." I have wintered them, however, but they seldom come through in very good condition. I sometimes think that Henry Alley's plan of shaking them off on the ground and destroying them is about as good as any. It depends somewhat upon how they have been managed. If there has been considerable brood reared all summer and toward the end of the season, the bees may winter pretty well, but the uniting must be done early, and it often happens that there is more profit in keeping the nuclei running than there is in uniting them early.

Genesee Co., Mich.

Feeding to Rear Bees for the Harvest.

BY A. F. BROWN.

This is a subject very few really seem to understand as it should be, or deserves to be, understood.

On several occasions I have fed on a large scale for the production of brood to give me a *full working force of field-bees* at the *opening* of some given honey-flow--not 10 or a dozen colonies, but upwards of 200, at seven or eight different times, and from this experience I find 7 to 8 weeks to be nearer right than 5 or 6 weeks, as usually given; and, further, if your flow is of short duration—10 days or two weeks—it pays to cage the queens about a week or 10 days before the flow opens, as the eggs laid from then on produce brood at an expense, providing one has no need of increase in number of colonies.

We will suppose your flow comes July 1. The eggs laid that produce the actual bees to harvest the bulk of this crop are those laid between May 1 and June 5 or 10. Nine-tenths of the bees produced after this date are at the expense of the crop or net returns from the colony.

Colonies averaging two quarts of bees and the equivalent of two frames of brood on the first of May, if fed *daily* for four weeks, will give colonies that will produce twice the amount of surplus honey that the same size and strength colony would, if we had waited until two weeks later to commence to feed them.

I erred in thinking six weeks was ample, but experience now tells me *eight* are far better, and the first *four* are the *most valuable*. Queens laying an average of 200 or 300 eggs per day with nurse-bees in the hive to only care for that amount do not jump up to 1,000 or 1,500 per day on a day's notice—it usually means a week or 10 days, with a good force of "nurse," and much longer if the nurses have to be reared.

Three quarts of field-bees of the right age at the opening of the flow are worth a peck of little, young, downy chaps that are just hatcht out, and come on as workers about the close of the flow. My experience says, it takes 40 pounds of honey, at the least, to produce a good, average swarm, of say 10 pounds; and one's success or failure in honey-production depends greatly on the one fact of *expending* this 40 pounds of honey at the right time. Nature often regulates it very nicely; still, there are many places and seasons when, if we depended on Nature, the expenditure of this honey, and labor involved, would be at a time we would derive very little returns from the investment.

The old axiom—"Keep your colonies strong"—would be more profitable to those living in a location where there is but one short flow—if it read, "Get your colonies strong in ample season to take advantage of the flow," and not to be consuming all their energy and honey that comes from that flow in producing "bees" for strong colonies after the flow has past.

It might not be amiss here to say that when feeding for stimulating brood-rearing, I feed from 4 to 8 ounces per day, each day, according to the strength of the colony; and I give this just at dusk—good honey diluted with an equal amount of water or syrup made of granulated sugar, 10 to 12 pounds of sugar to the gallon of water, and three pints of honey to this amount, as a flavor, and to induce the bees to take it more readily.

I prefer to feed right over the cluster *from above*, but under no consideration to keep breaking the sealings of the cover joints if the weather is at all cool. If your colonies are in two-story hives, place the "set of combs" that the bees use as a brood-nest, at the top, until you are ready for the harvest, then put the surplus arrangement above. Combs below the brood-nest are protected from the moths fully as well, if not better, than those above.

Volusia Co., Fla.

Experiences and Conclusions of the Past Year.

BY EDWIN BEVINS.

On my return home from a visit to Omaha, in the second week of September, I found myself confronted by a condition instead of a theory. The condition was something like this: Along about the middle of August I took most of the supers from the hives workt for comb honey, leaving on only those having a good many unfinisht sections. Honey was not coming freely then, and I was not looking for any fall honey, as I had never had any since I began to keep bees. In the closing days of August I noticed that smartweed was getting quite abundant, and that the bees were working on it to some extent, but I did not expect much from this source.

When I got home from Nebraska the weather was a little rainy, but I went out to see the bees. Some of the colonies had increast so much that not all of the bees could find room in the hives. Some of the bees were piled upon the alighting-board at the entrance, so wet that they could not crawl, and some had found shelter on the underside of the shade-boards, which I use to lean against the hives to protect them from the afternoon sun. Almost every hive in the yard was full of bees, brood, and honey, and some, as I have stated, were more than full. One colony, which had done a whole lot of work in the sections without swarming, swarmed while I was away, and the swarm struck out for the woods. When I lookt around among those little 8-frame hives overflowing with bees, I began to wish that more swarms had gone to the woods. Here I was, with thousands and thousands of hands to "hoe potatoes in October," and a strong probability that I should have thousands and thousands of hands to "hoe potatoes in March," and a further probability that about that time, or a little later, provisions will be exhausted.

Just now I am contemplating with a good deal of satisfaction my big hives with 10 Quinby frames, and also my 8 and 10 frame hives with frames 11 inches deep. When I take hold to lift one of these, I feel satisfied that the bees will not gnaw into the top-bars before next June. But what of those great colonies of bees in the little hives? The hives are heavy with honey now, but the space between the top-bars and the bottom-bars is only 8 inches. Ugh!

After all, I guess that I shall have to abate something of my hostility to these little hives. If one wants to get a big lot of comb honey, and is able and willing to do lots of work, there is, perhaps, none better for most localities. But the job of feeding that it seems likely that I will have to do, I am not contemplating with any great degree of satisfaction.

SOME "CONCLUSIONS" OF THE SEASON.

Another season of work in the apiary is done, and the work done during the season just past has enabled me to arrive at some conclusions.

1st. I conclude that Dr. Miller's objection to the Hoffman frame on account of unequal spacing is more formidable in theory than it is in practice.

2nd. I conclude that I want no hives with beveled or rabbeted edges. Sometimes one wants to use the chisel or screw driver with considerable force, and then one does not want to waste time in being careful.

3rd. I concluded that I want metal rabbets in all hives, except, perhaps, the big hives used for extracted honey. The sliding motion which these rabbets permits is of too much advantage to be dispenst with in the handling of frames.

4th. I concluded that I will never try to produce any more comb honey without the use of separators. Perhaps Mr. Abbott can get good work done in the sections without their use, but I can't. I tried this season in a small way, and was made to wish that I had tried it in a great deal smaller way. Mr. Abbott owes me some money for several sections that I was compelled to eat because I could not crate them. You see, I tried to get along without separators because he said he could. Without separators the sides of the sections would be built either convex or concave almost invariably, but occasionally a section would be bulged on both sides so that it would contain a pound and a half, or so, of honey, while the sections adjoining would be correspondingly light. While most of the sections could be put into the shipping-cases without much trouble, it would require a very careful hand to take them out without spoiling a good many.

5. I half concluded that I want no more sections with openings on all four sides, but will let another season's trial settle that question.

SLOTTED SEPARATORS—"GOLDEN BEAUTIES."

I sometimes read and hear about slotted separators. Will somebody rise and explain why the ordinary separators are not made with holes in them?

I want space here to make Mr. Norton an apology. It *was* a little rough to suggest any comparison between the golden beauties and a yellow dog, that should seem to be unfavorable to the bees. I take it all back. Mr. Norton's suggestion that the golden beauties bear about the same relation to a yellow dog that gold bears to brass, is well put, and I am willing to own to its force and correctness. But I wish to say farther, in this connection, that when I wrote the article referred to by Mr. Norton (page 514—1896), I intended to make no comparison between the golden beauties and any other bees I had in the yard, except the colony of 3-banded bees which I got from Texas at the same time. These bees were got at the same time, and were treated alike in every respect. The "goldens," I am certain, did not die because they were queenless. I have lost colonies of 3-banded bees many times, but never any that went into winter quarters under as favorable conditions as those goldens did.

The viciousness which Mr. Nortion thinks he sees was not in me, but in the circumstances attending the trial. I had hoped the result would be different. I am aware that a single trial is not worth much to base a judgment on. But the trial, such as it was, points strongly to the conclusion that not all yellow bees will winter as well as the 3-banded ones.

I believe there are some strains of the goldens that are as good honey-gatherers as any of the 3-banded bees. I believe their are some strains of the goldens that may go through the winter as well as any 3-banded bees, but I am satisfied that the colony I had was not of this strain. For Mr. Norton's satisfaction I will say that I never had but one colony of golden beauties. I have heard good reports before of the Duvall queens, and am obliged to Mr. Norton for calling attention to them. I mean to make a thorough test of some of these renowned goldens.

DOOLITTLE'S "OLD MAN."

Did the readers of the American Bee Journal take note of the antics of Doolittle's old man along in the latter part of last summer and the beginning of autumn? The first I noticed he was standing on his head. Next he was lying horizontally, and at one time I feared he was lying about Doolittle's queens. But then I reflected that Doolittle would not allow him to break any of the commandments, and I was forced to conclude that Doolittle had been sending out some marvelously good queens, even if they were golden beauties.

Next spring I mean to send to Doolittle for one of these queens in the hope of getting one like the one that made the record that stood the old man on his head.

Decatur Co., Iowa.

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Important Questions About Sweet Clover.

BY DR. H. BESSE.

1. How far from the apiary can bees work profitably on sweet clover, when they fly in the direction of a field of it, and have nothing else to work on, and come in loaded?

2. How much sweet clover seed is considered a good average crop per acre?

3. How much honey per colony per day would be expected in an apiary of 97 good and strong colonies, when one-half of the colonies are located in a field of 4 acres of sweet clover in full bloom, from July 20 until Sept. 20, and the other half of the apiary 2½ miles from fields of sweet clover in great abundance for the bees?

Delaware Co., Ohio.

[The foregoing questions were submitted to two sweet clover specialists—Mr. McArthur, of Canada, and Mr. Stolley, of Nebraska—who reply as follows:—EDITOR.]

MR. M'ARTHUR'S ANSWERS.

1. Bees will work profitably on sweet clover, or any honey-producing plants, if existing conditions are present for the secretion of nectar, at 2½ miles. They will gather more in proportion if only one mile, or less, distant.

2. That depends on how it is grown, whether for hay first and seed afterward. Sweet clover hay is valuable as winter food for stock—the same value as other clover hay, allowing the second crop to mature seed, averaging from 5 to 7 bushels per acre, of clean, hulled seed, if properly handled.

3. If a good season for the secretion of nectar, and an abundance of sweet clover within a radius of 2½ miles, with strong colonies and plenty of surplus combs for extracting, one pound per day, or about 100 pounds per colony, has been secured from that source in this vicinity. Taking an average of years, 60 pounds per colony would be a good average from sweet clover.

JOHN MCARTHUR.

MR. STOLLEY'S ANSWERS.

1. I think several miles; but it should be within, or about, one mile.

2. We have never harvested seed on a large scale. The yield is heavy, if you can manage to get the seed.

3. About 50 colonies of bees on 4 acres of sweet clover is more than should be allowed, to get the largest yield, since they need about 100 pounds of honey a day to live on during the working season. In my judgment, 20 colonies would carry more surplus honey from 4 acres than would 50 colonies. This has been the case in our apiary. At the time when 60 to 70 colonies were kept, we had to feed in the fall for winter stores, and hardly any surplus; but since the number of colonies is in proportion to the melilot bloom, the surplus has been year after year from 400 to 500 pounds to the acre, through the season.

RICHARD STOLLEY.

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Production of Comb Honey vs. Extracted.

BY C. DAVENPORT.

As I said in my first article on this subject (see page 5), the 40 colonies selected for the experiment were all in good condition, and they were divided as eqally as possible, with the exception that the 5 colonies in 10-frame hives were all put among the 20 which were run for extracted honey. These 5 hives contained considerable more honey than the others; this would have been some advantage to the set to which they were assigned, but three of them swarmed, and on account of the way all swarms from both sets were treated, the advantage was but slight.

All swarms from both sets were hived in 8-frame hives. No feeding whatever was done before or during the experiment, for last season from early spring until the main flow from clover, enough honey was gathered to keep brood-rearing up in good shape.

All the sections given to the colonies run for comb honey were filled with full sheets of foundation, and for the set run for extracted, 30 half-depth supers, each containing 7 frames of drawn comb, were used on 10 hives, which gave 3 supers for each one as needed. On the other 10, 20 full-depth upper stories containing drawn combs were used. With those run for comb honey no queen-excluding honey-boards were used; with the set run for extracted, 10 queen-excluding honey-boards were used—5 on the ones on which were used half-depth extracting supers, and 5 on the ones with full-depth extracting stories. These excluders were all used so that the queen was confined to the eight frames in the lower story.

Altho the experiment with the queen-excluders was, of course, not large enough to prove anything definitely, they certainly seemed to decrease the amount of surplus somewhat, and 5 of the 7 swarms which issued from the set of 20 run for extracted honey were from hives on which excluders were used; but with them the filled supers can be removed much easier in some cases, for when there is no brood in the upper stories they can be readily cleared of bees, in a very short time, with an escape-board, which I have before described; but with brood in the upper story, even if it is but a very small amount, no bee-escape or escape-board will clear it up of bees, whether the queen is there or not, and most of the 10 colonies on which no excluders were used had some brood in the second story, but I do not think that any of them at any time had more brood in both stories than 8, or, at most, 10 frames would have held if they had all been reasonably full.

By using shallow supers containing only 7 frames instead of 8, I hardly expected that the queens would lay in them, on account of their cells being deeper than those in regular brood-frames, but this did not appear to make any difference.

The total yield of the 20 colonies run for extracted honey was 1,960 pounds—an average of 98 pounds to the colony. The 20 colonies run for comb honey, stored 1,380 pounds in standard-size sections, of finisht honey, and 134 pounds in unfinisht sections—an averagee of 69 pounds per colony, of finisht honey.

If the extracted had been put in 60-pound cans, the comb honey crated, and both lots shipt to and sold to some large city market at current prices, there would have been (after deducting the cost of the crates for the comb honey and the cans for the extracted, also taking into consideration the lower freight rate on the latter) a large—for the amount involved—balance in favor of the comb honey, providing both lots arrived at their destination without loss or damage, tho I do not know as their chances would have been equal on this, for in all the very large amount of comb honey I have shipt, some of it over 1,000 miles, I have never, so far as known, had a dollar's worth lost or damaged in transit; and this is more than I can say for what little extracted I have shipt.

The 134 pounds in the unfinisht sections would perhaps offset the cost of the sections and foundation used with the comb honey set.

As fall flowers did not yield much, considerable feeding had to be done for winter stores—no record of the amount was kept, but the 20 colonies run for extracted honey required more than any others in the whole yard.

I was disappointed in the results of this experiment, as I was in hopes the results would be in favor of extracted honey, and if instead of a long, steady yield there had been a short profuse one, it might have been. I intend to try it on a larger scale next season, for I believe I see where some mistakes were made the past season.

In regard to the amount of work required in the production of the two kinds of honey, I was disappointed in this also, for it seemed to me there was fully as much, if not more, as well as less agreeable work, necessary with the set run for extracted honey. I was not, however, very well fixt to handle extracted honey last season. But it appears that in this locality their is one serious drawback to the use of shallow extracting-frames: If queen-excluding honey-boards are not used, some of these combs that were in supers, in which some brood was reared, have a large amount of pollen in them, they cannot very economically be used in the brood-chamber, and as their is a large amount of pollen gathered here in early spring and in early fall, the bees will not use or remove it, if supers containing the combs with it in are placed on the hives.

Southern Minnesota.

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Use of Separators vs. Slotted Sections.

BY C. P. DADANT.

QUES.—"Messrs. Dadant & Son—Is not a closed-top section, open on bottom only, the best section for me to use, when using wood separators slotted on bottom only, thereby forming 24 compartments which will not allow a direct draft to pass either up or sidewise, making it air-tight on the top and sides, which, of course, will be warmer for the bees to draw out the comb foundation? P. O."

ANS.—When the separators are used, it is, of course, as well to use closed top and side sections. Personally, however, we are opposed to separators. The only advantage, that we can see in these implements, is that they compel the bees to build within the inside of the section, and that sections thus built may be transferred from one box, or from one case to anther, without any regard to the position they occupied; so none of them can bulge out and protrude so as to be scratcht or bruised. This is indeed an advantage in shipping or in selling; but is this a sufficient compensation for the loss incurred from the repugnance of the bees to work in so divided a super?

That bees dislike to work in small apartments, where they cannot cluster in large numbers, is an averred fact. Mr. Oliver Foster, we believe, was the first to give us the reason of this. Mr. Foster says, in substance, that bees, in a state of nature, store honey for the winter months, and that it is necessary that it should be placed where they may reach it with ease in cold weather. Hence they place it above their brood-nest. Their instinct teaches them that it is not safe for them to have it divided into small apartments, because this compels the cluster to divide when it becomes necessary to consume the stores, and they become much more liable to suffer from cold, or even from hunger, when the outside clusters have consumed what is in their reach. Experiments have convinced us that their is a positive loss from compelling the bees to work in such divided receptacles.

The use of separators has not been confined to supers alone. They have been used in the body of the hive, and Mr. Colvin, who was Mr. Langstroth's main agent, when the movable-frame hive was first patented, had discovered that the separators secured straight combs of uniform thickness. But the devices proved unavailable in the brood-chamber, for *the swarms deserted*, in most cases, so Mr. Langstroth told the writer, *rather than build in such divided-up brood-chambers.* Is not this sufficient evidence that bees dislike separators?

There is, however, quite a point in the warmth of the compartments, where separators are used, and for this reason: If we used separators, we would use tight-top and tight-side sections. If we must put up with the nuisance, for a nuisance they are, we must take advantage of what is good in them, and there is no doubt, when the nights are cool, that bees work better in a warm compartment than in a cool one. They will carefully avoid placing their honey where there is the least draft or escape of air. This is another evidence of the correctness of Mr. Foster's argument, for it is evidently for fear of the winter's cold, that they avoid placing the honey where it might be unavailable. The experience of years among the bees concurs in proving this correct.

Our readers are aware that we are specialists in extracted honey production. We use supers with frames of half-depth, and these are placed directly over the brood-chamber, and are covered with an oilcloth and a straw mat; for we have long ago discarded the honey-board. It sometimes happens that the cloth becomes worn, and that the bees gnaw holes in it. At the approach of cool weather we invariably notice that at all places where the cloth is missing, where the heat can easily escape through the porous straw mat into the cap, the bees have removed the honey. Is not this plain?

Our advice, therefore would be: Avoid using separators, if possible; and in that case let your sections make as nearly a complete single apartment as possible; but, if you must use separators, use closed-top sections, so as to derive, at least, from your separators, all the benefit there is in them.

Hancock Co., Ill.

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A Canadian Bee-Keeper's Visit to California.

Written for and read at the Spring (1896) Meeting of the Los Angeles County, Calif., Bee-Keepers' Association.

BY F. A. GEMMILL.

Many times since my return home from my short but greatly-enjoyed visit to your beautiful country, I have been requested to write an article giving a synopsis of what I saw, of what I appreciated most, and what, above all things, would be the most likely to induce me to forsake my native land, to take up my residence in your much-lauded "glorious climate of California."

Now, it appears to me that my duty is to first present you with such an expression, in honor of the favors you conferred upon me, in so generously electing me an honorary member of your important organization, and the kind treatment you accorded me while with you, and which quite a number of your members, and many others as well, still continue to bestow upon me, even since my departure from among you.

There were many things that I observed whilst sojourning in your midst, some differing greatly from what in my past life I had been accustomed to, but nothing that I could not readily adapt myself to. Therefore any comments on such are not at all necessary, as your people appeared to be good citizens, owing, in part, no doubt, to your good schools and good government, but principally to the fact that a goodly number of good Canadians are residents of your good State; and, lastly, that some of your best apiarists are, or rather, once were, good, practical Canadian honey-producers! If this is a trifle hard to assimilate, kindly assist it with a little of your good sage or alfalfa honey, and all will be well.

But, jesting aside, I want to tell you that I appreciate your climate above everything else—(except yourselves), as I found it to be the very essence of what I had long hoped for, but which I scarcely ever expected to enjoy, even for a short time; but that short period has only created the desire for the continuance of it. It appeared difficult for me to realize that in the short space of five days, I could be transported, in mid-winter, from an atmosphere ranging at from 15 to 25 degrees below zero, with roads almost impassable from snow-drifts, and trains daily delayed for hours, from the same cause; and find myself ensconced in the bosom of sunshine and summer, with a temperature averaging from 65 to 85 degrees in the shade, and to have the privilege of plucking ripe oranges from the trees, (this being considered the *acme* of many a *tender-foot's* desire), which were growing like the fruits of our own country in mid-summer. This, to me, was indeed the source of great delight, but not more so than to perceive your great facilities for producing tons of No. 1 honey, with as little labor as in almost any other country in the world. This, too, seemed more like a dream than a reality; and sensations of a very pleasant character often thrilled me, when I thought that bees could in winter "work for nothing and board themselves"—I never before thought that they could, until I went to California; and that, in fact, the bees required no care, from the time the honey crop was harvested until the following season; while we in Canada and the Northern States had much labor in feeding every fall, and otherwise preparing them for their winter nap, whether wintered in the cellar or out-of-doors, with no opportunity of seeing the insects disporting themselves for 3 or 4 months, except, possibly, one or two cleansing flights with those wintered on the summer stands; they being the balance of the time in such a semi-torpid or hibernating state, almost akin to death itself; and, if wintered in the cellar, and one desired a glimpse of the inmates, he had to visit the repository and be contented with a peep under the hive, to see them clustering underneath the combs; yet for fear I may in the near future feel like censuring myself for saying so much in favor of California, I will, like a discreet individual, just add that we do sometimes get a good crop of good honey even in Canada, which I presume is because Canada is still a good place—for some things—but which an echo from California might answer, "Oh, yes, a very few things at that" —such as Canadian thistles and freezing weather!

There is yet another thing which particularly interested me—the great facilities for fruit production, especially where irrigation can be called into requisition, as also the large quantities and numerous varieties of your flowers and foliage, to say nothing of your big mountains, big trees, big gold and silver mines, and your big everything else; including the many big stories we have all so often read and heard about, the latter of course I only mean you accept in a literal sense, as no insinuations are intended that they are not true.

But I have not the time, no matter how well disposed I may be, to here mention all that should be mentioned. I will leave such for Rambler, whom I had the pleasure of meeting among others; or Mr. Wilder, as depicted in his glowing description of your land, some time since, and which through his kindness now lies before me. However, before leaving the descriptive part of my letter, I must not overlook the fact that I also admired the beauty and size of the young la—(Oh, I declare, I almost forgot I was a married man); I mean of *the old ladies*, all of which no doubt is attributable to your salubrious and health-giving climate, and if my present intentions are carried to completion, I hope at some future time to embrace the opportunity of being benefitted by all, except the latter, as of course I feel tolerably sure I am pretty well supplied in this direction already.

Now, then, assuming that your climate was to capture me, I should not want to be idle, for after all too much idleness is not good for any one. Apart from this, however, I fear neither my disposition—nor the extent of my money-bag—would permit such a state of affairs, and as a consequence I should expect to engage in agriculture, which has been a hobby from my youth up, and this I would do as already stated, partly from my love of the pursuit, but principally for the remuneration that I would naturally expect to accrue from following the more modern principles of honey-production. In doing so, I should not want to injure any who are now following such a vocation, either by selling honey (if fortunate enough to secure any) below what the majority consider a reasonable paying price, or by trenching on fields already sufficiently occupied by other apiarists, or naught else besides that is not consistent in a good citizen. I would also favor your honey exchange project, and now regret that I did not give you more encouragement on this subject, when askt my views at your meeting in March, 1895, respecting it; this, however, was owing entirely to my not having even thought over, much less studied, the matter from your standpoint, and not from any desire that you should not succeed in securing the end in view; as I have had not a little experience in marketing honey, even in our own country, and consequently do know for a fact that such a scheme would be a great benefit to ourselves, and I doubt not that the time is coming when similar action will to be taken if honey-production is to continue a paying business with us.

Now I do not wish it to be understood that I am an advocate of advising everyone to go to California, nor indeed for a single person to do so, particularly if they enjoy good health and are succeeding tolerably well where they are. "A bird in the hand is worth two in the bush," and this motto holds as good in this case as in any other of importance, as people who are continually moving from one locality to another with no good prospects in view of bettering their condition, either morally, physically, financially or otherwise, are of no benefit to themselves or the country in which they reside; and, let me add, you have a few such even in your State, as unfortunately in every place else, and this among many other things of minor importance was observed by your humble servant. (On this particular point, I could not but agree *in toto* with Rambler, Mr. Brodbeck, Dr. Gallup, Prof. Cook, Mr. Dayton, Mr. McIntyre, and many others, in their articles which have from time to time appeared in the different bee-periodicals, all of which endorse my opinions to a nicety.) Especially was this true in regard to the advice which Mr. Martin informed me he had given a friend who thought of leaving his native State, who at the time was and still is doing well, and enjoying good health where he is; "Let well enough alone," was, in his opinion, a good *motto*, and I need only add that in my humble opinion, it was the "wholesomest kind of wholesome advice."

In concluding, I particularly desire to express the hope that none of those who may have either the opportunity of hearing or seeing this article, may for one moment cherish the thought that it has been written from any selfish or hidden motive; if so, I request that such be not entertained, as my first, last, and only object in penning it, is to place matters in the real light as I found them, coupled with the assistance and experience gleaned from others.

Long live the Republic, and long live the bee-keepers; yet longer live your *big* honey crops, is the wish of one who may never realize it, but who nevertheless hopes that others may continue to reap from this time henceforward.

Stratford, Ont., Canada.

CONVENTION PROCEEDINGS

Report of the Ontario Bee-Keepers' Convention, Held at Toronto, Dec. 8—10, 1896.

Taken Principally from the Farmers' Advocate.

The 17th annual meeting of the Ontario Bee-Keepers' Association was held at Toronto, Dec. 8, 9 and 10, with a good average attendance from all over the Province. Great interest was shown in the questions askt, but all were not agreed as to how they were to be answered. A number of samples of honey-vinegar were shown by some of those in attendance.

Soon after the meeting started, Hon. Sydney Fisher, Dominion Minister of Agriculture, came in, and was introduced to those present. In speaking on the importance of bee-keeping, he said that the highest form of agriculture is to utilize bulky products and send them out in as condenst a form as possible. This bee-keeping did. He was not an authority on bees, and so would wait for the Association to make suggestions, which he would duly consider.

BY-LAWS—The report of the committee on by-laws, which recommended several changes, chiefly for the purpose of bringing the by-laws into harmony with the new Agricultural and Arts Bill, was past, with the exception of the clause which proposed sending lecturers into districts where no affiliated societies exist, the parent society to bear the expense.

A vote of condolence to the widow and family of the late Allen Pringle was also past.

SUPER IN TWO PARTS.—Mr. Pettit asked if it were advisable and profitable to have supers made in two parts. Mr. Gemmill thought it better to put on part of the super at first, as bees fill one side first; then turn the super around. Mr. Pettit's method was to have strong colonies when the honey-flow was on hand. If he had two weak colonies he united them. He raises the front of the hive one inch higher than usual with wedges. If bees have ventilation it checks the swarming impulse. He found that by using this method the bees filled the outside of the supers as well as the center. Mr. McEvoy, in reference to this, said that it was to the interests of bee-keeping to fill sections full with foundation in place of using a starter.

DRONE-EGGS—The questions were asked, "Why do old queens lay more drone-eggs than young queens? and do queens ever lay worker-eggs in drone-cells?" Mr. Gemmill said that if we hive bees on starters an old queen will lay drone-eggs. A young queen lays few drone-eggs. Mr. McEvoy would do away with the queen after she is two years old, and some of the members agreed with him, but others disapproved of the practice. Mr. McKnight's theory as to the reason why an old queen lays so many drone-eggs is as follows: The queen has ovaries, in which the eggs lie, one on each side of the body, with Fallopian tubes connecting with the sac in which the male's seed is deposited. When the egg comes down the tube the queen-bee can control its passage. To get worker-eggs the embryo egg has to pass into the sac, and is impregnated with the male principle, while to get drone-egg is past out without going into the sac. Every egg impregnated with the male principle weakens the queen. The queen deposits drone-eggs in worker-cells through her desire to get workers, but owing to her age the eggs are not fertilized.

THE PRESIDENT'S ADDRESS dwelt on the possibilities of bee-keeping and the adaptability of Ontario for its prosecution. It creates wealth. The honey crop displaces no other crop on the farm, and further, the primary object of the existence of the honey-bee is not to gather honey, but to assist by the distribution of pollen the cross-fertilization of plant life. The honey-bee is of the greatest value to the fruit-grower, and all that bee-keepers ask in return from the fruit-grower is a little nectar from the flowers in his orchard and field, and the firm and kindly grasp of his hand, acknowledging the common interests and common benefits. He referred to the chances of development of trade in our honey with the British and other markets, and to the experiments carried on at the Guelph Expermental Farm with foul brood.

Freight Rates on Honey.—These are far too high, in the opinion of members, honey being clast at first-class rates, while syrup is shipt much more cheaply. At any rate, granulated honey should get lower rates, as there was no risk of its damaging anything even if the case broke. Messrs. Gemmill and Holtermann were appointed a committee to confer with the Classification Committee of Railroads and Steamships as to lowering the classification of honey.

Bee-Keeping in Cuba.—An interesting account of bee-keeping in that country was given by Mr. Irving Kinyon, of New York. The natives use box-hives 5 to 6 feet long, open at both ends. Wax, not honey, was the object sought. The comb is cut out with machetes. Honey is too plentiful and cheap to be lookt after, being worth only 22 to 24 cents a gallon since the war commenced. Bees thrive well and are very gentle. The honey-flow begins October 1 and is best in December. Wax is worth 22 cents a pound. Wax-moths are very destructive to wax and comb. Most of the honey is shipt to Holland. Foul brood is very prevalent. Mr. Kinyon also gave the methods of securing comb honey employed in New York State.

Honey-Vinegar.—Some discussion took place on the methods employed in making honey-vinegar. Mr. McKnight gave his plan as follows: Take a barrel with a wooden tap that will hold 40 gallons; put in honey and water in the proportion of two pounds of honey to one gallon of water. The second fermentation will result in vinegar. Fermentation is regulated by the temperature and the admission of air. Below 42° fermentation ceases. The best temperature is about 85°. To hasten fermentation, yeast or "mother" can be put in, or an old vinegar barrel used. To clarify the vinegar, use isinglass, white of eggs, or, what is cheaper and nearly or quite as good, skimmed milk.

Principles of Summer Management.—An exceedingly interesting and what was pronounced to be one of the best papers ever read before the Association, was the one on the above subject, given by Mr. A. E. Hoshal. To make it better understood it was illustrated by diagrams. To many of the Association his views were a revelation in bee-keeping, and were eagerly received. Below will be found some points in his address:

In their natural condition bees store bulk honey above brood, and as near the top of the hive as possible. They work from the top down, and the brood is forced down all the time. Surplus cases should be added above the brood for honey. We should not compel our bees to travel over the honey on top to store more honey. The division between the brood and honey should be just above the brood-cases. Brood-chambers should extend under the whole surface of surplus case. In hives built with frames crosswise the end combs will generally be found full of honey, and therefore contain less brood. The less space found between the brood and honey, the quicker will the bees fill it up. The shallower the cases above, the quicker will they be filled. In the early part of the season he forces brood so long as they can be hatcht before the honey-flow ceases: after that time young bees are of no use. He uses a honey-board, which is an unnatural condition, but which he finds useful in increasing the honey-flow. This, by keeping brood out, gives a better quality of honey. Queens of strong vitality are needed. There is as much difference in the honey-producing qualities of bees as in the milking qualities of dairy cows. If we wish to check swarming, we must force the production of comb honey. He uses the Heddon hive, and has wintered bees in hives only five inches deep, those in single stories wintering more unformly than those in double stories.

In the discussion of this paper exception was taken to the statement that at the close of the honey-flow young bees were of no use, and also to the use of the honey-board, but Mr. McEvoy heartily endorsed Mr. Hoshal's system.

Experiments with Foul Brood.—Very interesting were the results of experiments with foul brood, given to the meeting by Mr. F. C. Harrison, B. S. A., Bacteriologist at the Ontario Agricultural College. He isolated the bacilli, and placed them in darkened chambers, at temperatures from 45° to 90° and at the end of a month growth was still going on. The same results were found when they were placed in the light. He took one drop of the spores and put it in a test-tube and allowed it to evaporate; he then exposed it to the sunlight for a portion of 124 hours, at 85° to 90°. At the end of the period he found them still alive. He found that it took 45 minutes to kill them at temperature of 208° to 210°. By using steam it was done in 10 minutes. In dry heat they live for 1½ hours at 150° Centigrade. He found bacilli in honey and bee-bread. Formic acid retards the growth of the bacilli, but not of the spores, but does not kill them.

In answer to a question, Mr. Harrison explained that the bacillus was the vegetable form, while spores are found when the bacillus ends its existence. Spores are a form of reproduction to tide the bacilli over adverse circumstances. When bacilli are excluded from oxygen they are purer. In hydrogen the germs grow well. He found bacilli alive in combs that had been exposed to the atmosphere for eight months.

He had tried feeding bees with honey in which spores had been placed. At the end of one month none seemed affected; but flies fed on sugar and water in which spores had been placed all died. He was now conducting experiments with formic acid and naphthaline, feeding the former to bees to see if that will counteract foul brood.

The following is the annual report of the Foul Brood Inspecter, Mr. McEvoy:

FOUL BROOD INSPECTOR'S REPORT.

During the past season I visited bee-yards in the Counties of Lambton, Huron, Bruce, Grey, Middlesex, Perth, Norfolk, Brant, Wentworth, Lincoln, Halton, Simcoe, Peel, York, Ontario, Carleton, Russell and Prescott. I examined 88 apiaries and found foul brood in 41. The great out-break of decaying brood which was found in so many apiaries in June and July caused many bee-keepers to become very much alarmed, and was often mistaken for foul brood. I received many letters from bee-keepers describing the sort of dead brood that they found in their colonies, and also samples of comb with decayed brood in them. Sometimes foul brood was mistaken for dead brood of other kinds until it had made great headway.

Every place I went, I found the bee-keepers anxious for me to examine their apiaries, and pleased when I did so. And for the very nice way that I have been treated by all the bee-keepers, I here return to them many thanks. I am also pleased to say that those that had the disease in their apiaries did their duty, and that I did not have to burn one colony in 1896.

My time, livery hire, and railway fares, amounted to $658.85. Wm. McEvoy.

Remedy for Wax-Moth.—"What is the best remedy for the prevention and destruction of the small wax-worm, principally on section honey?" was askt.

There seemed to be some doubt among the members as to whether this was the larva of the ordinary bee-moth or a new kind of pest. According to Mr. Heise, it was a worm three-sixteenths of an inch long. Mr. Switzer had had experience with a small worm, pinkish in color (which has a web), and works on the face of the comb. It was recommended to remove sections with pollen and there would be no trouble; also to keep comb in the house where the moth cannot get to it. If there are dead bees in the comb the moth feeds on them. Live specimens of the worms should be sent to the Entomologist at Ottawa, who could then determine if they were a new species.

Mr. S. T. Pettit made the following report for the Committee on Legislation, which was approved, with some modifications:

REPORT ON LEGISLATION.

I am forced to believe it my duty, in justice to the Parliament of Canada, to point out the difficulties and obstructions that came up in the way of at once giving the legislation sought. Then, again, this Association has a right to demand of me as to how I discharged my duties and why I spent so much money on them. Briefly, then:

I started for Ottawa Jan. 24, 1896. I had been there but a short time when I was made acquainted with the fact that the members had been liberally supplied with a pamphlet against our Bill, which was read, or portions of it, and quoted on the floor of the House as authority. This pamphlet set forth that "the law was sought for selfish ends." "It is wanted as a weapon and a menace to keep an upstart clique in power;" and other base motives were given as reasons for seeking legislation. Great effort was made to lead the Parliament to believe that only a few bee-keepers—a mere "clique"—care anything about the legislation sought, and that the motives of this few are low and mean in the extreme.

Then my reputation was assailed, and the statement was circulated that such "blind guides as Mr. Pettit will stick at nothing to damage any man's reputation who advocates sugar-honey or dares to differ from him in any way."

Then, again, besides the two opponents from our own ranks, there was a representative of an adulterating firm, said to be located in Montreal. I had not the pleasure (?) of meeting the gentleman, but I learned from good authority that he was very much afraid of our Bill, and said if it became a law in its then present shape that it would simply close up that branch of their business.

I have given these particulars that you may understand *some* of the difficulties and obstructions to be overcome before we could hope to get anything done for us. Now all this meant lots of hard work, or lose the game, and I determined to work and win. For thirteen days I remained at the capital and pusht the matter with all my might.

It was uphill work, but I workt with a will, as tho dear life hung upon success.

There would be no difficulty at all in securing an Act that would compel all mixers and producers of sugar-honey to set forth in a conspicuous manner on every container the composition of such parcel or package. Indeed, a good many members urged me to accept such a Bill. I distinctly remember a half hour's talk with a good old senator, who wanted me to accept such an Act, but when among other things I pointed out to him the danger to our good name and reputation as a pure-food producing country, in foreign markets, he declared we should put our foot upon all adulterations. He said, "If the Bill passes the House of Commons, then I will support it."

The penalties were mysteriously dropt out of the Bill between the first and second readings. The House had no opportunity of discussing them at all. Mr. Sproule said that if the penalties in the Adulteration of Foods Act were found to be insufficient, then it would be an easy matter to get the Act amended and the penalties made heavier.

Our Bill was somewhat mutilated before it became law, but I am glad to say it is a long stride in the right direction. Indeed, I believe it to be the best law in any country against that abominable adulteration business.

The Act brands "sugar-honey" a willful adulteration, and forbids the sale of it; it also forbids the sale of spurious honey and imitations of honey entirely.

Right here I may be allowed to say that Mr. Sproule is a better man when he gets right down to business in pushing a Bill through, than one would take him to be; quick, alert, shrewd, well posted, vigilant, and, withal, courteous, kind and convincing, and never mixt. Indeed, it was not only a feast but a marvel and an inspiration to hear him push the bill through.

If we stand to our guns and quit ourselves like men, in the near future we will surely get all we ask for; but for the immediate present I think we had better test what we have.

I presume most of us know that there are but few Acts past in any country found to be so perfect that they do not need amending sooner or later. If space would permit, I would like to mention the name of Mr. Sutherland, Mr. McNeil, and others who gave valuable assistance in passing the Bill.

One thing that perplext Honorable Gentlemen a good deal was an idea that was circulated, by some means or other, from some source, that bee-keepers generally in poor seasons were in the habit of producing "sugar-honey," so-called, for the use of their own families. This damaging untruth was sprung upon the House so late that I had but little opportunity to make the truth known.

And now, I most sincerely thank you for the confidence you have continued to place in your deputation during all these years. I have all along done the very best I could to carry out your wishes in this important matter. My faith in the eternal justice and ultimate success of our cause never waned nor weakened for a moment. Truth and justice must triumph in the end.

I have visited the Capital six times; have traveled 4,500 miles, and adding the distance I have traveled to report, makes in all about 5,100 miles. I was on the road and at Ottawa 54 days; have written hundreds of letters and other matter in the prosecution of this work.

I have carried the weight and responsibility of the work nearly four years. Indeed, it has been the greatest struggle of my life, but I have done it cheerfully and gladly. Success is a liberal rewarder. S. T. PETTIT.

MISCELLANEOUS ITEMS.

A motion was past that it was desirable to have an order-in-council past determining the per cent. of water which must of necessity be found even in pure honey.

The Treasurer's report showed a balance in hand of $56.17.

On the question of amalgamating the National Bee-Keepers' Union and the North American Bee-Keepers' Association, it was decided to take no action.

"What is the best method of rendering old comb?" was a question askt. The general verdict was in favor of the sun extractor.

Mr. Facfarlane, Chief Analyst of the Dominion Government, who was present, made some remarks, dwelling on the special aroma in honey which the chemist could not analyze, and askt if it were not posssble to cultivate certain flowers from which bees could get the necessary qualities to give honey the aroma. It was explained that properly ripened honey contained the necessary aroma, while that extracted too soon did not.

In response to Mr. Fisher's request, a resolution was past recommending Mr. R. F. Holtermann as Apiarist at the Experimental farm at Ottawa.

Mr. Fixture, of the Experimental Farm, Ottawa, presented some reports of experiments on comb foundation, which were ordered to be embodied in the annual report of the Association.

Mr. Macfarlane, Chief Analyst, gave a sketch of the method followed in analyzing at Ottawa and in prosecuting offenders against the Adulteration Act. The vendor was the one proceeded against, as in the English Act a clause provides the retailer be acquitted if he can prove that he bought the adulterated article in the same state as he sold it. A charge of $5 is made by the Department for analyzing, but if anyone suspects that someone is selling an adulterated article, he can notify the Inland Revenue Department, which will get a sample at its own cost and proceed against the offender if the analysis shows that the sample is adulterated.

After some discussion the Executive Committee was appointed to watch proceedings in regard to prosecutions.

The report of affiliated societies showed them to be 12 in number, of which nine reported. Of 1,553 colonies reported the increase in bees was 55 per cent. in the fall; the amount of comb honey produced by them, 9,899 pounds, and of extracted honey 80,909 pounds.

The election of officers for the ensuing year, resulted as follows:

President, J. K. Darling, of Almonte; 1st Vice-President, N. B. Holmes, of Athens; 2nd Vice-President, W. J. Brown, of Chard.

Directors—C. W. Post, of Trenton; J. W. Sparling, of Bowmanville; A. Pickett, of Nassagaweya; Israel Overholt, of South Cayuga; W. Couse, of Streetsville; F. A. Gemmill, of Stratford; W. A. Chrysler, of Chatham; N. H. Hughes, of Barrie; J. B. Hall, of Woodstock; from Agricultural College, Dr. Mills.

Secretary, W. Couse, of Streetsville.

Foul Brood Inspectors—W. McEvoy, of Woodburn, and F. A. Gemmill, of Stratford.

Delegates to Fair Boards—Toronto, R. F. Holtermann, of Brantford; Western, John Newton, of Thamesford; Ottawa, J. K. Darling, of Almonte.

Auditors—A. E. Hoshal, of Beamsville; J. Newton, of Thamesford.

Revising Committee—J. D. Evans, of Islington, and D. W. Heise, of Bethesda.

Hamilton was selected as the place where the next annual meeting will be held.

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

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The Alsike Clover Leaflet consists of 2 pages, with illustrations, showing the value of Alsike clover, and telling how to grow it. This Leaflet is just the thing to hand to every farmer in your neighborhood. Send to the Bee Journal office for a quantity of them, and see that they are distributed where they will do the most good. Prices, postpaid, are as follows: 50 for 25 cents; 100 for 40 cents; or 200 for 70 cents.

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The Names and Addresses of all your bee-friends, who are not now taking the Bee Journal, are wanted at this office. Send them in, please, when sample copies will be mailed to them. Then you can secure their subscriptions, and earn some of the premiums we have offered. The next few months will be just the time to easily get new subscribers. Try it earnestly, at least.

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ESTABLISHED IN 1861
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GEORGE W. YORK, - Editor.

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Editorial Comments.

Cold Weather.—Sunday and Monday, Jan. 25 and 26, 1897, were reported to have been the coldest days Chicago has experienced in 25 years. The average temperature for Sunday, we believe, was 14 degrees below zero, and for Monday 18 degrees below. The range was from 12 to 20 degrees below—both days. The sleighing has been, and is, fine (Jan. 30). It has been zero weather right along since those coldest days. Up to Jan. 24 the winter had been quite mild and open; but the next month may give us plenty of cold to make up for it. So far as we have been able to learn, bees are wintering all right in and around Chicago.

◆

Partly-Drawn Comb—A Big Thing.—Mr. E. B' Weed, of comb-foundation fame, in conjunction with The A. I. Root Company, is now able to announce that the making of partly-drawn comb—or comb foundation with side-walls ¼ to ½ inch in depth, is an assured success. For a number of years Mr. Weed, who is a persistent worker, has been experimenting along this line, and, seemingly, has finally and completely won. From present indications, it is apparent that this latest invention will merit an equally eminent position with the movable-frame hive, the honey-extractor, the bellows bee-smoker, comb foundation, and many others of the greatest inventions of the past in the realm of apiculture.

One beauty of this new comb seems to be that the bees will start storing honey in it at once, and that by its use almost as much comb honey as extracted can be produced.

At present, the manufacturers are able to make the new comb only in sufficient quantity to supply samples for illustration. But we doubt not it will be offered for sale through the advertising columns of the various bee-papers in good time for next season's use.

We have on our desk samples of the new partly-drawn comb—one of the samples having been cut out of a section after the bees had drawn it out further and also continued it downward from the original drawn starter, showing how perfectly the bees accept it and unite it with their own natural comb.

If the manufacturers can get this new comb down cheap enough in price, we believe that bee-keepers will run almost exclusively to the production of comb honey, for the reason that it will enable them to produce about as many pounds of comb honey as they could of extracted, and the cost of sections and the new comb will just about offset the cost of extractors and labor of extracting. If such should prove to be the case, it may go a long way toward solving the adulteration problem, because the effect will be to put upon the market more and more comb honey, and less and less of the extracted article.

We believe the manufacturers contemplate putting the drawn comb right into the folded sections, then the sections put into shipping-cases, and the latter crated in comb-honey crates. Then all the bee-keeper need do is to get whatever quantity he may need—of sections already filled with drawn comb—put them on the hives, and when properly filled and sealed, remove to the shipping-cases, put the cases back into the large crate again, and it is ready to be shipt to market.

As many know, the use of partly-drawn combs in the production of comb honey is not an entirely new idea. One bee-keeper has had an experience of over 25 years with such comb, and thinks that its importance has not been overestimated. Others have used it in one way or another for 12 or 15 years, and place a high value upon it.

We trust that this new way of producing partly-drawn comb, and the article itself, may prove to be all its inventor and promoters anticipate. Mr. Weed has been an indefatigable worker, and merits whatever success may attend his efforts in behalf of bee-keepers.

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California Anti-Adulteration Bill.—The following letter, by Mr. C. H. Clayton, of California, explains itself:

> I herewith send a copy of my proposed Bill, as it will be presented (and undoubtedly past). I have made some slight changes in the phraseology of the definition of extracted honey. As now worded, it has the hearty endorsement of Prof. Cook.
>
> Honey-dew is so *very* seldom stored by the bees here that no account can be made of it, as likewise the juices from the leaves of corn—virtually no bees are kept in the corn regions, and even if there were, my experience is that bees do not visit corn when other sources are available, as is the case here during the corn season.
>
> I am convinced that the only way we can put a stop to adulteration is to say in great big letters, "THOU SHALT NOT."
>
> C. H. CLAYTON.

The proposed Bill referred to in the foregoing, reads thus:

AN ACT TO PROHIBIT THE ADULTERATION OF HONEY, AND TO PROVIDE A PUNISHMENT THEREFOR.

The people of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1.—No person shall, within this State, manufacture for sale, offer for sale, or sell any extracted honey which is adulterated by the admixture therewith of either refined or commercial glucose, or any other substance or substances, article or articles, which may in any manner affect the purity of the honey.

SEC. 2.—Every person manufacturing, exposing, or offering for sale, or delivering to a purchaser any extracted honey, shall furnish to any person interested, or demanding the same (who shall apply to him for the purpose, and tender him the value of the same), a sample sufficient for the analysis of any such extracted honey which is in his possession.

SEC. 3.—For the purposes of this Act, "extracted honey" is the transformed nectar of flowers, which nectar is gathered by the bees from natural sources, and is extracted from the comb after it has been stored by the bees.

SEC. 4.—Whoever violates any of the provisions of this Act is guilty of a misdemeanor, and upon conviction thereof, shall be fined not less than twenty-five nor more than four hundred dollars, or imprisoned in the County Jail not less than twenty-five days, nor more than six months, or both such fine and imprisonment; and any person found guilty of manufacturing, offering for sale, or selling any adulterated honey under the provision of this Act, may, in the discretion of the court, be adjudged to pay, in addition to the penalty herein before provided for, all necessary costs and expenses, not to exceed fifty dollars, incurred in analyzing such adulterated honey of which such person may have been found guilty of manufacturing, selling, or offering for sale.

SEC. 5.—This Act shall be in force and take effect from and after its passage.

We do not see why Mr. Clayton's Bill doesn't cover the whole ground very completely. We hope it will be enacted into law, and then be rigidly enforced. Let other States use it as a sample, and if possible have it past this winter. Adulteration more than all things else, in our estimation, is what is killing the honey-business. Bee-keepers everywhere can't secure any too soon the passage of such a Bill as the one proposed by Mr. Clayton. It is just what they need—it is just what every consumer needs to protect him from a continuation of the villainous glucose fraud.

"*Thou shalt not*" is the right kind of a "gun" for bee-keepers to use, when they have proper "ammunition," in the shape of the Clayton Bill. *Down* with the adulteration frauds! and *up* with good, pure honey!

◆

The Slight Reform in Spelling, recently agreed upon by 300 editors, publishers, educators, authors, etc.—among them being the editor of the American Bee Journal—has (so far as we know) received only two unfavorable criticisms from among our thousands of readers, and both were somewhat vigorous protests.

This is exactly what was to be expected. *Of course*, the new spelling will not in general be liked at first, for, if otherwise, there would long ago have been a radical reform. In England the cumbersome system of "pounds," "shillings" and "pence," instead of the simple decimal system as used in this country, continues to be used probably for no other reason than because people are used to it, and no matter how much simpler and better "dollars" and "cents" are, they wouldn't like the change. Our correspondents who object to the present reform may recall the time when labour, honour, Atlantick and Pacifick were common spellings, and no doubt there were many who objected to dropping the superfluous letters, but it is doubtful if they would want, or indeed if any one would now ask, to return to the old form.

It is possible that of the proposed reforms "there is the least reason for this one," as one critic says, but there certainly is *good* reason for this. A sufficient reason for the change, even if there were no other, is that it is shorter. One letter takes the place of two, and in many cases of three. If that one letter does the work as well as the two or three, why is not the change desirable? But the one letter does the work *better*—a sufficient reason of itself. When "ed" is written where "t" is spoken, why not write it "t?" To those who are used to it, it may look better to write "shipped" than "shipt," but does it sound better? If these two reasons are not sufficient, it's hardly worth while to have reasons. The new spelling is shorter, and its correct use will make us become accustomed to the new way, while no amount of use will make the longer and incorrect way better. "Confest" instead of "confessed" may offend the eye, while we easily endure "blest," and would object to seeing "Blessed be the tie that binds," the only reason in the world for the difference being that we are accustomed to "blest" and not to "confest."

The reformed spelling was not adopted because all our readers would be sure to like it, nor indeed because any considerable minority might like it, but because it might help them in time to endure it, and in the end help to bring about a reform that might save many a heartache in the little folks who will learn to spell in the future.

Of course, we do not insist that all our correspondents shall fall into line, providing it's too much trouble, and we are willing to take the trouble on ourselves; but they may be surprised to find how seldom words occur that necessitate the change.

It is, however, pleasant to know that the majority endorse the change, and among them we have received the following note from one of our most prominent correspondents, and one who has had much to do with educational matters:

> "Editor York:—You have done a brave thing to face the prejudices of people who will dislike any change for no other reason than because it is a change. Perhaps it might not be a bad plan to give a specimen of our language as it was written some hundreds of years ago, and ask some of the old fogies if they would like to return to it. But that's just where we would be now if no change had been allowed. I'm rather hoping this change of putting "t" for "d," when it is pronounced "t," may be only the beginning of reforms in spelling, and that future generations of the little innocents in our public schools may not be obliged to waste a full year of their school lives in learning what they ought never to be obliged to learn."

We may say further that we are trying to be careful to spell according to the new way, but we find that often we fail to see (until too late to correct) that a word has gone in with an "ed" that should have been changed to "t." But please remember, not every word that has "ed" as an affix is to end with "t." If in doubt, refer to your Webster or other dictionary. One of the two correspondents who have objected, gave us clear evidence of his own thoughtlessness, or carelessness, by calling our attention to what he supposed was a fact, namely, that "ed" in "walked" is not pronounced as the sound of "t." But it was so easy to refer him to Webster's dictionary, where it is clearly shown that "walked" is pronounced as if spelt "wakt," the "a" having the same sound as "a" in "all." It always pays to be *sure* you are *right* before attempting to criticise another. We don't know everything—of course not—but if there is one thing above all others that we prided ourselves on, both as a student and as public school-teacher, it was our ability to *pronounce* and *spell* words *correctly*. Were it not for the appearance of boastfulness, we would mention a few of the prizes we have won in spelling contests.

But it is quite unnecessary to take further space on this subject. We have agreed, with many others, to adopt this reform in our spelling, and of course expect to adhere to our agreement. We feel certain that it is a progressive step, and that all our readers will see it in the light we do, after they become accustomed to reading words spelt according to this new and sensible reform method.

The Weekly Budget.

Mr. N. E. France, of Grant Co., Wis., reported Jan 26 a temperature of 25 below zero, and the day before 30° below. He called it "cold weather!" Shouldn't wonder a bit if it was.

Mr. T. F. Bingham, of bee-smoker notoriety, residing in Clare Co., Mich., wrote us Jan. 25: "It is 10° below zero this morn—coldest of the season. Nice sleighing. Bees are all right, so far."

Mr. N. H. Smith, of Ontario, Canada, wrote Jan. 23: "I had something happen last fall that I never saw since I have kept bees. It was this: On Nov. 27 my bees were working all day carrying in pollen. Bees are wintering finely."

Mr. E. L. Carrington, formerly of Pettus, Bee Co., Tex., has removed to DeFuniak Springs, Fla., hoping to benefit his invalid wife's health, and where he will engage in rearing Italian bees and queens. See his advertisement on another page.

Mr. M. H. Mendleson, of Ventura Co., Calif., wrote us Jan. 18: "We are having fine rains, and prospects for more." This is encouraging to California bee-keepers, for a honey crop there depends altogether upon a sufficient amount of rainfall.

Mr. G. M. Doolittle, of New York, wrote us Jan. 26:

"Our winter has been very mild till of late. The last week has been very cold and rough—little snow, and that piled in heaps. Bees seem to be wintering well, both indoors and outside."

Mr. F. F. Zillmer, of Wisconsin, wrote Jan. 25:

"Friend York:—I am highly pleased with the good "Old Reliable," and the straight road it has taken in exposing frauds. I will be ready to join the New Union as soon as the amalgamation is settled, to help check those blood-suckers."

Supt. D. D. Howe, of the Vermont College Farm, when paying his subscription Jan. 25, said:

"I think a great deal of the American Bee Journal; it has been a great help to me for the last three years in my work at the College Farm, where I have been Farm Superintendent here for the last five years, and have had charge of the bees. I have done a large amount of experimental work, and yet have made them profitable."

Mr. Thos. G. Newman, in a recent letter from San Francisco, Calif., says:

"I am just getting settled again. I have a nice, sunny location—an essential in California. But I have the worst 'cold' I ever had."

It will be rembered that Mr. Newman had just been moving from San Diego to San Francisco. His number and street are, 2096 Market street. We once heard that a California "cold" is the worst of "worst colds" known. It must be pretty rough if it is ahead of a genuine Chicago "cold."

Mr. A. S. Terrill—one of the members of the now defunct firm of Terrill Bros., who were chief backers of the fraudulent firm of "Wheadon & Co."—is now in the real estate business in Chicago, and calls himself "the home-seekers' friend." Awhile ago he pretended to be "the honey-shippers' friend," by proxy—through Wheadon & Co. He is now trying to get people to let him invest their surplus money in real estate, mortgages, etc. In a letter soliciting patronage, he says: "I am a large property holder myself, and therefore believe that my judgment might be of some value to you in placing your money." No doubt he's "a large property holder," but what means did he use in order to be able now to say it? If the truth were known, we might find that many honest, unsuspecting farmers contributed the greater share of it. We are informed that he "made" $100,000 on South Water street, and we haven't the slightest doubt of it. But if we can prevent it, no more of our readers will help to enrich such "friends."

☞ See "Bee-Keeper's Guide" offer on page 45.

Questions and Answers

CONDUCTED BY
DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

What to Do with Partly-Filled Sections.

What shall I do with my partly-filled sections? If I put them out in the spring and let the bees clean them out, will it do to use the comb that is in the sections, that is, will it be fit for market after being filled again? or shall I cut the comb out and fill the sections with foundation? I have a good reputation for my honey, and do not wish to injure it.

S. B. S., Minnesota.

Answer.—It will hardly do to risk letting the bees fill sections that have stood all winter with any honey in them, no matter if there is only enough to daub them a very little bit. For that little bit will pretty surely be granulated, and the granulations are something like yeast in starting the new honey to granulating. Better cut out and melt up the comb, and put in fresh foundation, if indeed the section is good enough to use over again. You are quite right in being jealous of you reputation. It's worth a good deal to John Smith for people to say, "John Smith's honey is always good, and I don't want any other."

Questions on Wintering and Queenlessness.

1. I am wintering my bees in winter-cases on the summer stands. They are all in Simplicity hives, which have an entrance at the bottom 4x⅜ inches, also a ¾-inch auger-hole in the center above. The entrance to the outside case is ½x7 inches. Between the hive and the outside case I have left an air-space over the entrances, 4x6x10 inches. Will this give sufficient ventilation? There is a 5-inch sawdust cushion on top of frames.

2. I am of the opinion that two colonies of my bees went into winter quarters queenless. How soon in the spring would it be advisable to investigate? C. E. C., Michigan.

Answers.—1. You will probably find that there is ventilation enough, if I understand correctly that the ¾-inch hole at the center has full play. The position of that hole makes a great increase of ventilation, the ¾-inch hole perhaps doubling the ventilation that the entrance alone would give. The Germans—at least some of them—lay great stress on having an upper entrance, and sometimes have it quite large, and close the lower entrance.

2. Don't trouble them till there comes a day when they have a good flight. You can't do anything about it before that time, anyway, and you may do harm by opening them. If the hives are packt to keep them warm, better wait till it gets warm enough so you'll not mind taking away the packing, or at least till they fly about every day.

Combs of Candied Honey—Getting Bees to Work in Sections.

Last fall I had 4 colonies of bees. I don't want more than 2 to winter while I live here, so I try to prevent swarming. I divided up last summer after the one colony swarmed, and that stopt swarming. I put in full sheets of foundation, consequently when I doubled up in the fall I had all together, with my upper story hives, about 30 brood-frames full of honey, besides some 10 or 12 narrow extracting-frames. Now I wanted to extract that. I tried to rent an extractor, as I didn't feel able to buy one for what little honey I might get. So you see winter came on, and I had to move all these hive-bodies (4 of them) into the kitchen, and two shallow extracting supers, which makes a lot of comb honey. Well, when I united, I put in the hives all the oldest combs, and the ones that had the most bee-bread in them, but for all that I have almost all of these black and heavy combs. I tried to eat it, but it is too strong. The comb is tough and strong. We might cut the combs up in small pieces, cut the caps off and let what will drain out, but it is so thick, and some of it is candied and won't run out. There is a fine lot of combs, but I wanted the honey—I don't care for the combs. Still, if I could get the honey out and save the combs it would save me buying foundation in the spring. Now, what will I do with them, say 15 or 20 combs full of honey? Can I do some way to get it in the supers?

I can't make my bees work in sections to save my life, but if I take off the sections and put on a super with narrow extracting-frames, they go right to work. They stored honey all summer in them, and not a drop in the sections. I have only two narrow supers and frames, and they filled them several times. Then I thought if they wanted to work so fast I would put a hive on top, so I nailed boards together the same size as the hive, and put it on top; then as fast as they filled a frame on the outside of the brood-nest with honey, I put it above, and put a frame of foundation below, and some frames that were ⅓ to ⅔ full of honey I put above, too, so my bees stored lots of honey. I monkeyed with them this way to practice. I want to learn. I can do a good deal with bees, but I can't tell it. But I can't make them work in sections. Now, what shall I do with this candied and thick comb in the spring? Will it pay me to buy an extractor? I don't want to get so much stuff around me, and no use for it.

S. M. S., Knox Co., Nebr.

Answer.—What to do with old combs filled with candied honey is rather a tough question. If that one word "candied" could be left out the case would be quite different. I have read of melting granulated honey in combs, using mild heat a long time so as to make the honey all liquid without melting the comb, but I haven't the greatest faith in its accomplishment. It will be of little use for you to get an extractor, for candied honey cannot be extracted, and the probability is that it will all be candied by spring. Perhaps you may get the bees to dispose of part of it in the spring. If it is put under or over their brood-nest, the sealed part uncapt, and what isn't sealed daubed over the surface with honey, they will promptly empty it out, using or storing the liquid part and dropping the grains. Have a shallow box or other receptacle under the hive, and gather the grains out of that, melt them slowly, and you will find that to be a good table honey. That which has been stored in comb that never has been used to contain brood can be melted up, comb and all. A stone crock is perhaps best for this purpose, setting the crock on the reservoir of the cook-stove so it will melt very gradually, or else set the crock in a dish of hot water on the stove, putting a piece of shingle or something of the kind under the crock so it will not sit directly on the bottom of the dish containing the water. The object is to keep the bottom from getting too hot. If it is two or three days before it is melted, all the better. After it is all melted, let it cool, and take the wax off the top. You can do the same way with comb that has been used for brood, but it will not work so satisfactorily. But the honey will not taste so strong as to eat it comb and all.

It seems rather strange that you succeed so poorly in getting bees to work in the sections. Instead of giving them more combs when they have filled their extracting-combs, put a super of sections on the hive under the extracting-combs, and see if they can resist the temptation to fill the sections. I never saw a case yet where bees would not store honey in sections (providing they had any honey to store) if they had in the super one or more sections with comb partly or wholly drawn out, or if there was put in one of the sections a piece of drone or worker brood.

Honey as Food and Medicine.—A new and revised edition of this 32-page pamphlet is now issued. It has 5 blank pages on which to write or paste recipes taken from other sources. It is just what its name indicates, and should be liberally distributed among the people everywhere to create a demand for honey. It contains a number of recipes on the use of honey as food and as medicine, besides much other interesting and valuable information. Prices, postpaid, are: Single copy, 5 cts.; 25 copies 75 cts.; 50 for $1.10; 100 for $1.50. Better give them a trial. Send all orders to the Bee Journal office.

A New Clubbing Rate has been arranged for Gleanings in Bee-Culture and the Bee-Keepers' Review with the American Bee Journal. Hereafter either of the two papers named will be clubbed with the Bee Journal for one year, for $1.90.

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Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Nucleus vs. Full Colony for Queen-Rearing.

Query 43.—1. Will a two-frame nucleus rear a queen as soon as a strong colony? 2. And if there's any difference, how much difference in the time a queen commences to lay?—TENN.

H. D. Cutting—1. Yes.

Prof. A. J. Cook—1. Yes.

Eugene Secor—1. I don't know.

Dr. C. C. Miller—1. No. 2. Perhaps two days.

Jas. A. Stone—1. I know of no reason why they would not.

Mrs. L. Harrison—1. I should think not. 2, I don't know.

E. France—1. Yes, if the weather is warm. 2. I don't know.

Emerson T. Abbott—Yes; but the queen will not be as valuable.

C. H. Dibbern—1. Yes. I do not see how there could be any difference.

Mrs. J. N. Heater—1. If there are plenty of bees, yes. 2. No difference.

Chas. Dadant & Son—1. Yes. If the nucleus is strong enough to keep warm, it will do as well as a big colony.

G. M. Doolittle—1 and 2. No difference of any account; but the best queens will be reared in the strong colony.

P. H. Elwood—1. There is a little difference, usually in favor of the strong colony, but I cannot say how much.

W. G. Larrabee—1. I have never had much experience in rearing queens in a nucleus, and I am unable to answer.

Dr. J. P. H. Brown—1 and 2. They will, if it has bees enough; and the queen will commence laying just as soon.

J. M. Hambaugh—1. If your nucleus is strong and honey coming in, there will be no difference; otherwise there might be.

Dr. A. B. Mason—1. Yes, in warm weather, with all conditions favorable. 2. There is no "difference in the time a queen commences to lay." When she commences she usually commences.

J. A. Green—1 and 2. Altho I have never allowed such nuclei to rear queens, I do not think there would be any difference in time. After a queen is hatcht there is no difference, provided the nucleus is in proper condition.

R. L. Taylor—1. Not quite so quickly on the average. 2. If the weather is fine, and the nucleus strong, there would be no difference, but if the weather is cool, and the nucleus weak, from one to three days longer would be required.

A. F. Brown—1. Not usually. 2. The queens reared in a full, strong colony are the best. If you have reference to "from the time the queen-cell is given each," then I would say, very little difference, and no difference in quality of the queen.

Rev. M. Mahin—1. A good, strong 2-frame nucleus will probably rear a queen as soon as a full colony, but she will not as a rule be as well developt. 2. The queen in a strong colony will begin to lay, as a rule, some days earlier than

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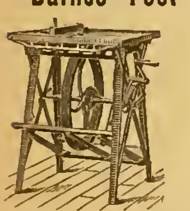

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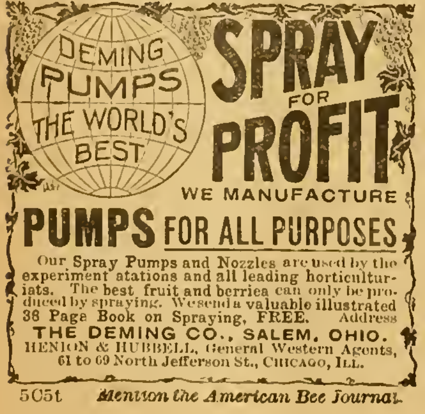
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one in a nucleus, unless the nucleus is stimulated by feeding. How much, depends upon weather and circumstances.

G. W. Demaree—1 and 2. In warm weather they will, and sometimes sooner, as they are apt to begin with a three or four days' old larva, and for this reason nucleus colonies cannot be depended upon to rear uniformly good queens, unless they are furnisht with good queen-cells.

J. E. Pond—1 and 2. In my own experience a 2-frame nucleus properly guarded will rear a queen as quickly as a large colony. The strength of a colony is relative. A 2-frame nucleus might be a strong colony, while three times the number of bees on a full hive would be weak. Keep all colonies strong, in order to get the best results.

General Items.

Old Bee-Keeper Not Discouraged.

I have got to be between 70 and 80 years old, and I ought to quit keeping bees. I began when I was only 16 years old—got my bees out of the timber by working on Quinby's plan. I lost about 100 colonies last season, but have 60 left to start with this year. I am not discouraged yet. Hurrah for the American Bee Journal!

HOUSTON PORTER.
Jefferson Co., Colo., Jan. 23.

Bees Prepared for Winter.

I am wintering 24 colonies out-doors. They are all in a row under a shed two feet high in the rear, five feet wide on the roof, and open in front, facing the south; they are packt a foot deep on the back with straw, and six inches between each hive. I left the section-cases on most of them, filled with comb in the sections, and some with honey. Six of the colonies I put into the cellar; they were the weakest ones, making 30 in all. They seem to be doing well so far.

I think the prospects here are good for next season, as we expect to have a big crop of sweet clover.

JOHN S. SLEETH.
Livingston Co., Ill., Dec. 31.

A Government Whitewash.

On page 823 H. D. asks for a preparation to whiten his bee-shed. Take ½ bushel of unslackt lime, slack it with boiling water, cover during the process to keep the steam in; strain through a fine strainer, and add one peck of salt, dissolved in warm water; three pounds of ground rice boiled to a thin paste and stirred in while hot; ½ pound of Spanish whiting, and 1 pound of clean glue, previously dissolved. Add 5 gallons of hot water to the mixture. Stir well, and let it stand a few days, well covered. It should be applied hot. It is used by the Government to whitewash lighthouses. A pint will cover a square yard, if properly applied to wood, stone or brick.

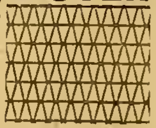
C. W. CURRY.

N. E. Ohio and N. W. Pa. Convention.

On account of the non-appearance of any northeastern Ohio members of the Northeastern Ohio and Northwestern Pennsylvania Bee-Keepers' Association, it was decided that the convention be conducted by the Northwestern Pennsylvania Bee-Keepers' Association, who were called to meet at the same place.

The meeting was called to order by Pres. Dewey, of Columbus, Pa., who is the President of both Associations (the latter was organized at a meeting held in Corry, Pa., Nov. 21 and 22, 1894) in the parlor of the

WOVEN WIRE FENCE



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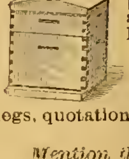

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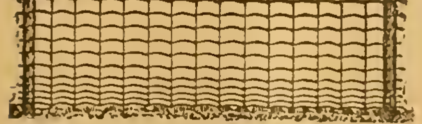

A Fatherless Country.

Washington declared Agriculture to be the "most healthful, most useful and most noble employment of man." He was loath to leave his farm, although clumsy "Virginia rail" fences were the best to be had. With neat Page fences on all sides he would have "stuck to the farm."

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Mention the American Bee Journal.

St. Nicholas Hotel, Corry, Pa., Jan. 20, at 1:30 p.m. The members in attendance were few, but every one seemed to be in earnest from first to last. The convention was a success, one member going so far as to say that the discussions were worth 50 cents every hour to him.

The program consisted of practical topics, and each one seemed determined that the *best* should be brought out. A fuller report may appear in the Bee Journal later.

The election of officers for the ensuing year resulted as follows: D. A. Dewey, of Columbus, Pa., re-elected President; Ed. Jolley, of Franklin, Pa., Secretary and Treasurer, the old Secretary positively refusing to act longer on account of poor health.

The members present reported the average yield of comb honey the past season to have been from 20 pounds in some apiaries to an average of 40 pounds—the highest for a whole apiary.

The convention adjourned to meet in Corry, Pa., Wednesday and Thursday, Jan. 12 and 13, 1898. GEO. SPITLER, *Sec.*
Mosiertown, Pa.

* * *

Bees in Good Condition.

I have 72 colonies of bees, in 8-frame dovetail hives, and they are in fine condition so far this winter.

F. P. McALISTER.
Kearney Co., Kan. Jan. 26.

* * *

Buying Bees Cheap—Transferring.

On Jan. 23 I drove six or eight miles in the cold—which was cold, for the wind was awfully strong from the northwest—to a public sale, and they sold 8 colonies of bees; of course, I bought them, too, and for only 35 cents each. They are good bees, too. It was close to the mountains, where there is plenty of blue thistle. The bees are in hives of away back, about 100 years, some in old straw gums or hives, and some in logs about 2½ or 3 feet long. The straw hives are very comically made. If "ye editor" was close to me, I would give him one to set in front of the Bee Journal office-door. I am going to have a picnic transferring them, which I will do the last of March. My brother and I transferred 35 colonies last March very successfully. We did not lose one. I transferred a colony two weeks ago, and kept it in the cellar, which is very dry and warm. I am now busy making my own hives, cutting them out with a Barnes' saw. L. A. HAMMOND.
Washington Co., Md., Jan. 25.

* * *

A Few Iowa Bee-Notes.

I am in the northwestern part of the State (Iowa), where the season or flow is short, and the winters long. Oct. 25 we had our last day for a cleansing flight. The ground was covered with snow, yet the air roared like midsummer with the hum of the bees.

I winter my bees in the cellar, and have lost but four colonies in six years. I think each one (if I remember) came from clogging the entrance, and molding. I raise the hives from the bottom-board in front, leaving the top sealed. I have had some with loose tops go through with scarcely any loss.

Our bees were just "swarm crazy," as I hear almost every one say. The heavy honey-flow made them act as if possest.

We have had freaks that we never had before. For instance, six swarms absconded after filling from two to four cases of 24 pounds each. One swarm on June 13 stored 96 pounds of surplus, and then absconded, leaving nothing but hatching brood. I hived them in another hive, and they filled it and one more super.

We had lots of white clover, heart's-ease, and buckwheat, of which I always sow the Japanese; then the Alsike. But our alfalfa doesn't have a drop of nectar in it. Maple, willow and dandelion furnish our first pollen. I am going to plant, or sow, Rocky Mountain bee-plant, rattle-weed (or car-

A GREAT deal of nonsense has been written—and believed, about blood purifiers. What purifies the blood? .. .. ..

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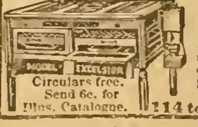

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penter's square) and sweet clover. If we could only get each and every bee-man to try to help furnish bee-plants or forage, our honey-yield would be much larger.

Last year (1895) was almost a failure, as I got only 100 pounds from 33 colonies. We lost most of our early swarms; they would come out, wheel, and go like a cyclone. Had we had a spray pump, and been right there, possibly we could have prevented their leaving.

Our market is flat—about as others report it. Extracted, 12½ cents; fancy white, one-pounds, 15 cents—have been 20 cents heretofore.

I use the dovetail hives, and make them myself. I tier up, and hive upon full brood sheets and starters, but I will use full sheets in each next year. I am on a farm, and I find it keeps one very busy to care for 30 or 35 colonies of bees and make a hand in the field. But I so dearly love honey and to handle the bees, and be with them, that I am getting careless of my stock. P. A. Newcomer.

Beuna Vista Co., Iowa, Dec. 18.

* * *

Sells Granulated Honey.

I see in the proceedings of the Illinois State Bee-Keepers' convention a discussion on granulated extracted honey. I prefer to sell all of my honey granulated, as my customers then know it is pure. The only trouble I have is to granulate it soon enough. The way I granulate it is to heat it moderately, and keep it in a refrigerator. It candies very nicely. If anybody knows a better way, I wish they would tell us through the Bee Journal. I sell all of my honey in the home market, and can't supply my customers. I get from 15 to 20 cents per pound. I think that extracted honey should be sold only in a granulated state, which will prove to the people that it was not adulterated. J. J. Mayer.

Vigo Co., Ind.

* * *

Open Winter—Hunting.

My bees are all alive so far, but I suppose I will have to feed some of them, as we have such an open winter, and bees consume lots of stores. My bees did not store any surplus honey the past season, and as a matter of fact, I cannot feel as happy as does Dr. Miller with his 10,000 sections of comb honey. Good honey crops are seldom here; failures are plenty. Still, I can't afford to do without the American Bee Journal, for it is a great help to me, and, besides, it is dirt cheap at $1.00 a year.

This is the time of the year when the bees should not be disturbed, and the bee-keepers have not much to do. I, for one, love sport, and so I spend most of my time in hunting. I have a new gun that cannot be excelled for shooting qualities, having already killed a great deal of game with it this winter. Our list shows 104 rabbits, 50 squirrels, 40 quails, etc. F. N. Blank.

Cooper Co., Mo., Jan. 23.

* * *

Against Adulteration, Etc.

I am deeply interested in, and admire the stand the Bee Journal has taken in regard to adulteration, and frauds generally. Ignorance and dishonesty are the backers of all frauds. No intelligent, honest man can object to having a law compelling all manufacturers of food products to sell the same under their true names.

I located here last spring, coming from Oklahoma Territory. I have a splendid range for bees. The bluffs of the White river are covered with basswood, and the pastures with white clover. The clover did not do very well the last few years, owing to drouths, but we had plenty of rain last fall and this winter, and all available ground is carpeted with it now. The basswood failed last year, but smartweed yielded plenty of winter stores, and some surplus. I purchast one colony of bees last spring, and it is in the cellar, in good condition.

I am contemplating taking a near-by widow's apiary on shares the coming season. She has 16 colonies, an extractor, and supplies enough to run them this year, and says I can have them on my own terms. There are comparatively no bees in this locality now. There were a good many, kept on the haphazard plan, but the last three disastrous years have about cleaned them out. Rufus Williams.

Lawrence Co., Ind., Jan. 25.

* * *

Prospect for a Good Season.

Bees in this locality are wintering splendidly. The weather is mild, and their stores consist mostly of heart's-ease honey, which seems to suit them splendidly. There are upwards of a hundred acres of clover in my immediate vicinity, and the prospects for a good season here are very promising.

Edw. Smith.

Madison Co., Ill., Jan. 18.

* * *

Report for 1896.

The past season has been a fairly good one for bee-keepers in this part of the State. I had 7 colonies last spring and increast to 32. I took off about 200 pounds of extracted honey and 300 pounds of comb, in one-pound sections. My honey was mostly from white clover. I did not get any surplus honey from the fall flow, and the bees had a hard time to get what they needed for winter stores.

I find the American Bee Journal a great help in my bee-keeping. A. W. Wilson.

Dakota Co., Minn., Jan. 15.

* * *

Introducing Queens.

The article by Dr. E. Gallup, on page 2, is a shoulder-striker. I have just been having a little experience in this line. On July 8, 1896, I sent to an Illinois breeder for a tested, 5-banded Italian queen, and she arrived all right on July 18, and was introduced the next day on frames of hatching brood, as the "A B C of Bee-Culture" said that was the only sure way of introducing. Well, it was a weak colony in the fall, and the other day I examined them, and there was only a pint of bees; I thought I would try to save the queen, which was a good one, so I put her into a cage. After having removed a black queen, and waited 24 hours, I put the Italian queen over the brood-frames, and the next day she was balled. Then I took her out and waited 24 hours longer, and then I filled my pipe and got it going in good shape, and I made those bees think that it was the best queen they ever saw, in about 10 seconds. I think if Dr. Tinker were introducing a queen here the first of January he would have to do it some other way besides hatching brood; and if the tobacco smoke method was a success when the type was set for "A B C of Bee-Culture," it was a success Nov. 7, when Editor Root, in his comments in Gleanings, said it should be condemned.

The article mentioned above is only one of the many good things that the readers of the Bee Journal get for their dollar. Also, stay with the dishonest commission-men, Mr. York, like a hybrid bee to a beginner in bee-keeping. Ray Sullivan.

Columbia Co., Oreg., Jan. 14.

* * *

Bee-Keeping in Utah

I see a great many articles printed about queens. I have had my bees over 12 years, and I have never had any queens except such as my bees are willing to rear. Of course I do not depend upon bees for a living. Last year they practically swarmed none at all, for out of nearly 75 colonies there was but one swarm, and that clustered so high I gave it to a person for taking it down.

I had so much to attend to, that I got my oldest son to take off the honey, but he did not start in until everything was full, and some of the colonies were building on the outside. He took out five barrels of over

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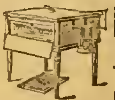
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☞ See A. B. J., pages 809, 812, Dec. 17.

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500 pounds each, and yet did not go through them all, as the rain set in, and as there was all I could sell.

I leave my bees on the summer stands, and do not do anything to them, except in some winters I will hastily close them up. Of course, there are a few hives without any bees in spring. If I have time along in May I go to the strongest and take off the top of the hive, and look for a frame with a queen-cell. If I find the queen I take her in place of a queen-cell, and go to the empty hive and take out four or five frames of comb and put in the frame with queen or queen-cell, and take out three or more of the other frames and put in with the queen. If there is no queen-cell nor queen, I see that there is a frame or two with eggs. I have no trouble about filling up my empty hives, but it may not do in other places, as we have a good bee-country, and as the flow of honey commences early in the spring, and continues all summer until late in the fall. I do not see but what my bees are the same as they were 12 years ago. I could produce 150 pounds per colony if they were extracted from and properly attended to when I first got my bees, and could get 15 cents a pound for the honey. I took good care of them then, but as there is not much sale here for honey, I let them go. I am in the fruit business, and that pays better, as I am growing the best and am working for the fancy trade. I am getting four cents a pound for apples, but they are fancy. O. W. WARNER.

Grand Co., Utah, Jan. 17.

Convention Notices.

NEW YORK.—The Cortland County Bee-Keepers' Association will hold its annual meeting in Good Templars' Hall, at Cortland, Saturday, Feb 13, 1897. H. S. HOWE, Sec.

IOWA.—The seventh annual meeting of the Eastern Iowa Bee-Keepers' Association will meet at Anamosa, Iowa, Feb. 10 and 11, 1897. A corps of experimenters have been doing special work in the apiary, and will report. Lay all cares aside, and come and enjoy the good things prepared for you.

Andrew, Iowa. F. M. MERRITT, Pres.

ILLINOIS.—The annual meeting of the Illinois State Bee-Keepers' Association will be held at the State House, in Springfield, Feb. 24 and 25, 1897. The State Farmers' Institute meets the same week—including all the State live stock associations—and our Executive Committee, along with them, arranged for this date, in order that the Legislature might be in good working condition. (We all know what for.) There will be an effort made this winter to get a Pure Food Bill past, and that means bee-keepers want a hand in it, to see that the adulteration of honey shall cease FOREVER AND EVER. Two years ago we succeeded in getting an Anti-Adulteration Bill through the Senate, but it failed in the House, only for want of push. Let bee-keepers throughout the State impress upon their Representatives the importance of such a bill, and come to our meeting to refresh their minds on the subject.

Railroad rates will be no greater than a fare and a third, which will be announced later. Our programs will be issued along with the other State Associations named above. JAS. A. STONE, Sec.

Bradfordton, Ill.

Poultry Guide and Catalog.—One of the best and prettiest things we have received in the line of pamphlets for 1897 is the "Poultry Guide and Catalog" issued by John Bauscher, Jr., Box 94, Freeport, Ill. It is mailed for only 15 cts., contains 100 large pages, and is printed in colors. It gives the best plans for poultry houses, and sure remedies and recipes for diseases. It is a good thing for anyone who keeps even a few fowls. Send for it, and also kindly mention you saw it in the American Bee Journal.

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HONEY and BEESWAX

MARKET QUOTATIONS.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

NO. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

Chicago, Ill., Jan. 19.—Fancy white, 12@13c.; No. 1, 10@11c.; fancy amber, 8@10c.; No. 1, 7@8c.; fancy dark, 8c.; No. 1, 7c. Extracted, white, 5@7c.; amber, 5@6c.; dark, 4½c. Beeswax, 25@27c.

Very little activity in the market.

Philadelphia, Pa., Dec. 31.—Fancy white comb, 13-14c.; No. 1 white, 11-12c.; fancy amber, 10-11c.; dark, 8-9c. Extracted, white, 6-8c.; amber, 4-5c.; dark, 3-4c. Beeswax, 26c.

Comb honey arriving freely and market overstocked at present.

Albany, N. Y., Jan. 29.—Fancy white, 12-13c.; No. 1, 11-12c.; fancy dark, 7-8c.; No. 1, 6-7c.; Extracted, white, 5½-6c.; dark, 4-5c.

The honey market is very quiet and stock moving very slowly, even at reduced prices. White clover is not plentiful. Extracted is moving very slowly, but we hope for an improved demand soon.

Indianapolis, Ind., Dec. 31.—Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Boston, Mass., Dec. 31.—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Milwaukee, Wis., Dec. 31.—Fancy white, 14-15c.; No. 1, 12-13c.; No. 1 amber, 8-10c. Extracted, white, 6-7c.; amber, 5-6c.; dark, 4-5c. Beeswax, 22-24c.

New crop of honey begins to come forward. The demand is very poor and quotations almost nominal. Weather is very warm and the consumption of honey is very small. Plenty of fruit, and hence the appetite is satisfied with same in preference. Later on we expect an improved demand for honey of all kinds.

Cleveland, Ohio, Dec. 31.—Fancy white, 14½@15c.: No. 1 white, 12½@13c. Extracted, white, 6@7c.; amber, 4½@5½c. Beeswax, 22@25c.

There is not very much honey in our market Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

New York, N. Y., Dec. 31.—Fancy white, 11@12c.; fair white, 9@10c.; buckwheat, 7@8c. Extracted, white clover and basswood, 5@5½c.; California, 6c.; Southern, 50c. per gallon. Beeswax in fair demand at 26@27c.

The market is quiet and inactive. Demand light and plenty of stock on the market.

Cincinnati, Ohio, Dec. 31.—Comb honey, best white, 10@14c. Extracted, 4@6c. Demand is slow; supply is fair.

Beeswax is in fair demand at 22@25c. for good to choice yellow.

San Francisco, Calif., Jan. 20.—White comb, 9-10c.; amber, 6-7c. Extracted, white, 5-5½c.; light amber, 4-4½c.; amber colored and candied, 3¾c; dark tule, 2¾c.

Beeswax, fair to choice, 23-25c.

Kansas City, Mo., Jan. 20.—Fancy white comb, 14c.; No. 1 white, 13@14c.; fancy amber, 12-13c.; No. 1 amber, 11-12c.; fancy dark, 10-11c.; No. 1, 8-9c. Extracted, white, 6-6½c.; amber, 5 5½c.; dark, 4-4½c. Beeswax, 25c.

St. Louis, Mo., Dec. 30.—Fancy white, 14c.; No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@10½c.; fancy dark, 9@9½c.; No. 1 dark, 7@8c. Extracted, white, in cans, 6@7c.; in barrels, 5@5½c.; amber, 4½@4¾c.; dark, 3½@4c. Beeswax, 26½@27c.

Haker stock of extracted honey, 4@5c; stock very scarce. Fair receipts of comb. Beeswax in good demand.

Minneapolis, Minn., Dec. 31. — Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.: dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Detroit, Mich., Jan. 9.—Fancy white, 13-14c; No. 1, 12-13c.; fancy amber, 11-12c.; No. 1 amber, 10-11c.; fancy dark, 9-10c.; No. 1, 8-9c. Extracted, white, 5½-6c.; amber, 5c.; dark, 4-4½c. Beeswax, 25-26c.

Buffalo, N. Y., Jan. 22.—Fancy comb, 1-pound, is selling fairly well at mostly 10c.; occasionally 11c.; No. 1, 8-9c.; occasionally 10. Other grades, 8-4c., according to color and general condition. Extracted, 4-5c. Sales of any grade cannot be made fast unless prices are cut in accordance.

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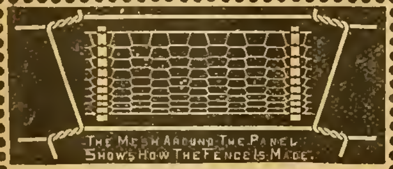
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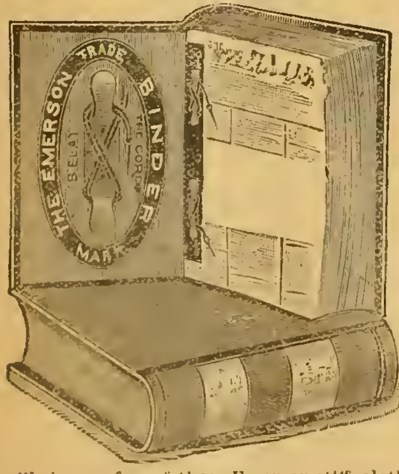

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37th Year. CHICAGO, ILL., FEBRUARY 11, 1897. No. 6.

Contributed Articles

"Price of Comb Honey vs. Extracted."

BY G. M. DOOLITTLE.

It is needless for me to say that I read the American Bee Journal with great interest, for it is indeed a "house full of meat." But there is now and then a thing which I read with more interest than I do others, and one of these things which has interested me exceedingly, is found in the report of the Illinois State Bee-Keepers' Convention, as given on page 22, under the above heading. The original question read, "How much per pound should consumers pay for extracted honey of the same grade, when comb honey sells to the consumers at 22 cents per pound." But in putting the question to the convention, Dr. Miller changed it from the original to, "At what price per pound for extracted will you be willing to change from comb honey at 22 cents, to produce extracted honey?" Then came answers of 10 cents, 11 cents, and 12½ cents—one being in favor of 10 cents, four in favor of 11 cents, and four in favor of 12½ cents.

Now, I have been at a loss to know on what grounds the one calling 10 cents as right, based his calculations. Taking into consideration that there is greater value in the apiarist's labor, (or any which he may hire) in the summer months than in the winter months, and that the larger share of the labor when working for comb honey comes in the winter and fall months, while the labor in producing extracted honey comes very largely during the summer, I have always believed that the practical value of labor per colony differs very little between producing extracted and comb honey. If this is a fact, and I hardly think it will be disputed, then the one answering 10 cents must have argued that he could produce more than double the amount of honey in the extracted form, from a given number of colonies, than he could of comb honey. Does any one believe this possible, and have that extracted honey of the same "*grade*" as the comb honey? I do not.

Then if we are right in the above calculations, the four that said "11 cents," believed that just double of the same grade of honey could be produced in the extracted form that could be had in the comb form. Again, I ask, does any one agree, outside of those four? I, for one, do not.

Then, the last four say, "12½ cents." They come a little nearer to my figures, but I consider that they are much out of the way. From the years of experience which I have had, if we would produce extracted honey of the same *grade* (and this was the original question) as comb honey, said honey must stay on the hive till fully ripened or sealed over, the same as the comb honey; for it is not admissible to take *that* from the hive before it is sealed over. Remaining thus on the hive, I never have been able to obtain more than a quarter more in extracted honey than in comb honey; but when extracting the honey every third day, or before scarcely any was sealed over, I have been able to double the number of pounds over comb honey; and when leaving till partly sealed over, as was the custom when the extractor first came to notice, I could obtain fully one-third more. But the honey is to be of the same grade, so I have only a quarter more in pounds for the same value in labor, to figure on. Hence, as a quarter of 22 cents is 5½ cents, which taken from the 22 cents would leave 16½ cents, we have this as the figure at which we can sell extracted honey of the same grade, when comb honey is selling at 22 cents.

If I have made any mistake in this figuring, I should like to have some of the readers of the American Bee Journal show wherein, for in these things lie our "bread and butter," quite largely.

At this point, Mr. Baldridge notices that the convention had drifted away from the original question, (as bee-keepers are very prone to do, and in thus drifting they almost always drift onto something often of more importance than to have stuck to the original question) and so rises to a point of order, and calls for the original question. Again, Dr. Miller, with his fatal "don't know," (which, as a rule, always brings our something unique, whether at a bee-convention or in the bee-papers) tries to state the question, but this time he gets it thus: "When comb honey sells to consumers at 22 cents per pound, how much per pound should consumers pay for extracted honey, of the same grade?"

Now we have the thing in a still different light, and in that light I am going to shock the readers, undoubtedly, by saying, *Just what the apiarist asks for his extracted honey.* Why not? What is there to hinder? Have I not a perfect right to charge just what I please for my production? And as I now have my honey in a shape where it will keep for years and years, up to centuries, why shall I not fix whatever price I please on it, and cease producing any more till I have sold what I have on hand, at figures placed to suit my station in life.

But I am met with, "Some one will undersell you."

Well, then I will take Mr. Baldridge into my confidence, and I will, with him, form a corporation, and we together will influence others to go in with us, till we have a monopoly of all the honey in the extracted form in the United States. And then, as time progresses, if Canada interferes, we'll influence Congress in our behalf, and that body, together with the Senate and the President, will give us a protective tariff so high that the Canadians cannot afford to pay it, and thus they will not interfere to any great extent. But as those Canucks are a determined set, it will propably be better to take Mr. McKnight and a few others in with us; and then we'll go over the water and get Messrs. Cowan, Gravenhorst, Tipper, etc., till we can control the extracted honey, and make our price for it, throughout the whole world. *Now* we can control the production, and thus maintain a price, just as high as it is possible, and not have the seventeen hundred million people of the earth go to using something else in the place of our extracted honey. Is this not a right answer to that last question of Dr. Miller's? If not, why not? It is only in line with the California Bee-Keepers' Exchange project, and such men as Prof. Cook, Dr. Gallup, J. H. Martin, and others, whose names I love, tell us said Exchange is to our interest.

If any whose names I have mentioned think there is any flaw in this plan, will they please point it out? for we can only succeed by a concert of action, a unity of purpose.

But this article is already too long, and I have not said half what I wish to say, so I will defer the rest to some other time. Meantime, I request that the reader go carefully over all that was said on pages 22 and 23, under the heading, "Price of Comb Honey vs. Extracted," for there is much there which is of profit to all who read it, if they will only put their best thought into the matter. Onondaga Co., N. Y.

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Age at Which Young Bees Work Outside.

BY B. J. C.

During the summer of 1895 I made some experiments, to determine the earliest age at which the young honey-bee can fly out and carry food or honey into the hive. My attention was called to the subject as follows:

I had four very strong colonies of Italian bees, and one morning at the commencement of the basswood honey-flow I noticed that the ground in front of these hives was thickly strewn with young bees, which, from their appearance, I supposed to have been not more than 24 hours out of their cells. They were jumping along in grasshopper fashion; about the third or fourth jump they would rise and fly away. This continued for three or four days. At first I thought this an unnatural procedure, but when I saw those young bees returning to the hive loaded almost to their utmost capacity with food, I concluded that their procedure was both natural and reasonable, for the season was bad for the bees, and honey scarce. So they were determined to gather it "while the sun shined." After a careful investigation, I was confirmed in my conclusion.

One of the above-mentioned hives has been, for almost three years, on the window-sill in my room, near my writing table, and when the sun shone through the window, and the rays would fall directly into the hive, I frequently removed the cover to make observations. As the rays of the sun kept up the temperature of the hive, the cell-builders would continue their work for a short time, but as they appeared to get the material from a cluster of bees on the inside top of the cover, I would replace the cover as soon as I had observed the kind of bees at work on the cells, which appeared to be all old ones. I also observed that the old bees, in some cases, used force to compel the young ones to fly out.

As I could not determine the exact age of those young field-workers, and what they effected, I continued my investigations by weighing the hives. The four which displayed so much energy tipt the scales at 100 and more pounds, while the others did not weigh more than 30 or 40 pounds.

To settle the other point in question, I sent to a queen-breeder and procured six yellow queens, one of which I put into a strong colony of blacks, Aug. 17, 1895, from which I had removed the black queen the day previous. Twenty-three days later the young yellow bees were out in front of the hive. The next day I made about eight gallons of sugar syrup and put it in the feed troughs; as there was not much abroad for them to get, they were soon at work on the home supply, and the three and four days old yellow bees were doing their share of the work—about two to one in favor of the blacks; but the following day I think the yellow ones had the majority.

The next day—the 26th after the yellow queen had been put into the aforesaid hive—the last black bee had disappeared, except four or five dead ones in the portico, and the young yellow bees were working as strongly as the bees in the neighboring hives.

I am certain, from the above experiments, that the young honey-bee is capable of doing field-work on the 4th day after issuing from the cell, and it is quite probable on the 3rd day. Also, that the yellow and black bees will not live long together in the same hive, unless the hive is large, and each kind has its own queen. Whether the blacks were expelled by the yellows, or whether they left on their own accord, I cannot say.

The case is different with the hives of Italian bees into which I put yellow queens, as they have up to the present continued to live in peace.

The above observations may apply only to the bees of this locality; for, if I mistake not, I read in some bee-papers that the young bee remained in the hive 16 days after issuing from the cell, and died of old age 45 days from hatching, which, I presume, applies only to the bees in the place in which the writer resides, as I am positive that the bees of northern Indiana have a longer lease of life, and do field-work at a much earlier age; and, from experiments and observations I am quite certain that not one in a hundred of the workers die of old age, but, like soldiers in active service, are swept off by sickness and violent deaths before their natural course is run.

St. Joseph Co., Ind.

California Bee-Keeping—Honey-Adulteration.

BY L. T. HARPER.

My wife and self came to California in the spring of 1893 (for our health) from southeastern Dakota, and after concluding to make this State our future home, I began to look around for a small investment, that would give me something to do, and a reasonably fair prospect of some income every year. I was told by a good many that had been in the bee-business a number of years, that they had never had a total failure of honey. I had had no experience with bees, except a few that I had in box-hives, with Quinby's book for an instructor, in southern Minnesota, in the years of 1873 to 1875; so I sent for "A B C of Bee-Culture," and went to studying up.

In February, 1894, I bought out an apiary of 96 colonies in good condition, with plenty of stores to carry them along until the spring blossoms. The apiary being in the foothills, 12 miles from this place, we moved right up there, so as to be able to give them all the attention they needed. We were told we would probably need about 50 more double hives than we already had, so we bought the lumber at a mill here ("sugar pine" as they call it), and had it worked up in shape to nail together; and by April 10 I had them all made up and ready for business.

But the business did not come that year. My son, who was to assist, staid until we saw there was not going to be any extracting to do, then lookt up other work. I staid with the bees until Aug. 1, not getting a pound of surplus honey, and but one swarm, but the bees gathered enough to keep them through until another season without feeding.

In the spring of 1895 we started into the honey season with 74 colonies, most of them in fairly good condition. I was taken sick in March, and was able to do but very little with the bees. My son did all the work (except a little help from me in swarming-time, and about $18 worth of help in extracting), without having any practical experience, except the little he helpt me the spring before. The bees just about doubled in numbers of colonies, and gave us about 9½ tons of extracted honey.

The past year, 1896, you are aware Southern California had practically no honey. Some thought, early, that we were going to have something of a crop, and extracted almost all there was in the upper story. But I think nearly, if not quite all, had to feed that much back, and probably more, too. I know of no bee-keeper around here that has not, or will not, have to feed to carry his bees through.

THE ADULTERATION OF HONEY.

I have been very much interested in the discussion of adulterated honey. The more so, as I had a little experience a year or so ago in selling honey in South Dakota, Iowa and Illinois. I found no pure honey put up and sold by the jobbers; nearly every one seems to know that extracted (or "strained honey," as most of them call it) is being adulterated. But very few really *know* whether it is or not, unless they have the pure honey to make the comparison. To illustrate:

I stopt over night in a little town in South Dakota. At one table the next morning two traveling men and myself were seated. The griddle cakes were brought on, and one of the men took some of the contents of a tumbler that had a small piece of comb honey submerged in it, and spread it on his cakes. After tasting it, he remarkt that that was pretty fair honey. So I took a little to see just how much honey there was about it. I carried a small bottle for a sample in my breast-pocket. I handed it to him, remarking that if he called that good I would like to have him try mine. He poured out a little on his plate, and, after tasting it, said that he did not believe there was any honey in the glass except the little piece of comb we could see.

In Davenport, Iowa, I went into a grocery, and told the lady behind the counter that I had some California extracted honey that I would like to show her. She said she had some honey she bought just a few days before. She had it in a 6-quart tin pail, and a little taken out into glasses. I askt permission to taste it; then askt her to taste of the sample I carried. After doing so she lookt at me (with rather a sad countenance) and said: "I am afraid there is not much honey about that I have."

There are tons of bogus honey being disposed of in another way that I have not seen mentioned in the Bee Journal or elsewhere. There were men all over Iowa last fall operating as follows: They would go into a town and hunt up board in a private family where they could have the kitchen stove in the evening. They put 50 pounds of sugar into a boiler, and water enough to make a good syrup; and after it is well dissolved, they take four one-pound sections of comb honey and cut it all up fine, and stir it into the boiler of syrup. Then at some stage they add tartaric acid to keep it from granulating (I am told). They start out in the morning with the syrup in a deep milk-can, with a long-handled pint dipper, and represent themselves as living in the country and as having "strained honey" of their own production to sell! They sold, on an average, in Waterloo, where I first heard of them, from 40 to 50 pounds a day, at 12½ cents per pound. They were selling the same in Davenport, when I was there.

I went into a grocery house in Rock Island, Ill., and saw quite a lot of glasses set up in a conspicuous place, markt "Honey." In some of them you could see a little piece of comb honey, and some none. Some of them were labeled. I askt the clerk if they sold much of it, and he said they had disposed of quite a good deal. It was not all labeled anything more than the word "Honey," but I pickt out one labeled as follows: "Pure California white clover strained honey; Franklin McVeagh, Chicago, Ill." You see I was curious to know just how California white clover honey tasted, and I must say that it does not have any of the flavor of the white clover honey east of the Rockies, and I am afraid that any one that buys it will "go back on" California honey—especially "white clover honey."

Riverside Co., Calif., Dec. 24.

[If there is one subject above all others that needs attention *just now*, it is that of honey-adulteration. We must have a national pure food law enacted mighty soon, or the business of pure honey production will be ruined forever. The shameless adulterators are constantly at work, and will so continue until compelled to stop by the enforcement of a rigid anti-adulteration law. The United States Bee-Keepers' Union has a big job ahead of it. It will require the *united* efforts and funds of all bee-keepers to win in this fight. But it is well worth undertaking—in fact, bee-keepers cannot afford to submit longer without soon finding their occupation gone.

What are you going to do about it?—EDITOR.]

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Instinct or Reason in Insects—Which?

BY PROF. A. J. COOK.

Before the publication of Darwin's great book on the "Origin of Species," and prior to the dawn of the new light with which it illuminated all nature, it was almost universally believed, and as generally taught, that only man thought, planned, and reasoned—all the lower animals were governed by instinct. While some may have doubted regarding the actions of the higher vertebrate animals, no one thought it at all a question that the moving cause in the life-habits and economy of all invertebrate animals was instinct. It was taught in our natural history literature that the bird built its first nest with the same exactitude and in the same style that it built all its subsequent nests. Naturalists were even more sure that each species of ant, bee, or moth, was a sort of animated automaton, that always ran out its little round of life in precisely the same manner as all its ancestry had done before it. It was wound up at birth; and simply lived to unwind just as all similar forms have run down in all the long past.

Among the many good fruits that came from Darwin's new view of creation, was the huge interrogation point that it placed after this whole idea of instinct. Men wondered if it were true that animals below man were mere automatons. Animal psychology was brought into existence and the views held regarding the springs to action in the lower realms of life were soon reconstructed. Men learned that reason and intelligence, in the lower life forms, must be invoked to explain the phenomena that were brought to light by the deeper insight into animal habits and actions. Even a show of ethics, often however with dimmest coloring, was thought to be discovered by a close observation of the life-habits even of insect life. The great Romanes found that his dog could be taught to count; and the astounding performances of the ant-colony, kept and studied in his library by Sir John Lubbock in the intervals of his arduous Parliamentary labors, had led all readers of his facinating "Ants, Bees, and Wasps" to marvel at the wondrous performances of these highest of hexapodous animals.

In the study of insects, we often discover methods of action that demonstrate not only mental traits of no mean character, but ways that strongly simulate moral actions. We also see evidence of sense perception that surpasses anything known to human experience. It is my purpose in what follows to call attention to some of these characteristics.

The coddling-moth, parent of the apple-worm, which latter pest is familiar to all lovers of the apple everywhere throughout our country, is not high in the scale of insect life; yet it evinces no slight possession of business sense, and even observes one of the Ten Commandments. This little grey moth, hid by its very color as it rests by day on the russet bark of the apple-tree, flits forth at the dawn of nightfall, to drop her three or more score of eggs where her baby-caterpillars may find, even at birth, a full larder of most toothsome viands. The young forming fruit is now straight from the stem, with its calyx-basin uppermost. The persistent calyx-leaves seem like so many protecting stakes about this shallow basin. All below is smooth and precipitous. Any baby caterpillar would be safe in the wind-rockt cradle—the calyx-basin; safer because of the green calyx-leaves, which would gird it round and hold it in. The eggs might be washt off by rain or pickt up by bird or egg-loving insect, except that they were lodged in this same protecting basin, and hid by the same calyx-leaves. Even little Moses was not better concealed or more skillfully protected. Any such action by man, as the placing of these eggs, so warily and skillfully, would be praised as a fine example of wisdom and caution. But this is not all! As the little mother-moth peers into the calyx-cup to see if all is safe for the egg, she may perchance discover by sight of an egg, wee caterpillar, or burrow, showing that the little larva had already entered the fruit—that some sister had already pre-empted that egg-depository. She lays no eggs, but at once flits away to other fruit. She says in the most eloquent language—action: "I will not covet the wee fruit morsel, of my neighbor's little one, for my own yet unhatcht; I will respect its rights."

The plum curculio is a weevil or snout-beetle. The weevils are such beetles as have their heads prolonged into a snout or rostrum. At the end of this beak are their sharp jaws. The plum curculio wishes to place her eggs on or about the plum, so that baby curculio may enter and feed on the luscious plum pulp. Here there is no calyx-cup with a protecting crown of sepals—all is smooth, glistening rind. If she place her egg on the smooth plum peal, rain will wash it far from its base of supplies, or some hungry bird may snap it up. If she bore into the flesh of the growing fruit, the very growth of the plum will crush the delicate egg. She provides against either catastrophe, by inserting her beak and cutting a crescent, which hangs by the peel at one side. And into this she places the precious egg. Thus growth of the plum is stopt, and danger of the egg being crusht prevented; the egg is firmly held, and is concealed from sharpest eyes of bird or insect. Such provision for safety of offspring we praise and admire, as marks of intelligence and civilization among our own kind; why withhold a similar meed of praise to the little, astute curculio?

In an article written for "Student Life" last year, I showed how the yucca-moth rolls up pollen and places it on the stigma of the flower, with no purpose so far as we can discover, except to fructify the blossom. If the flower was not thus artificially pollinated, no seed would develop, and the larva of the yucca-moth would starve. Here we have forethought and skill that is only matcht by that of the 19th century man.

We welcome the frugal, industrious, producing foreigner to America. We are beginning to consider seriously an interdict of the immigration to our land of all others. The bees were long our superiors in the discovery of this wise principle of political economy. Woe betide the bee whose temerity leads it to attempt an entrance into the hive of another colony, except it carry with it a full load of honey. In such case the other bees at once attack it, and usually death is the price of its venture. If, on the other hand, it enter fully stockt with provisions, it receives a hearty welcome.

The death rate in our cities is becoming greatly lessened in these last few years. The major reason is greater cleanliness. Decaying matter is burned or buried. Bees taught us this lesson, and have practiced beyond our latest and best performance for ages. Suppose a great bumble-bee attempts to pilfer from an open hive; the bees pounce upon him, and he is soon a corpse. They then lay hold of him, and attempt to drag him forth from the hive. If the entrance is too small, they will still tug away, till they have removed every vestige of hair. What then? They cannot remove it, and they cannot brook the presence of filth; so with their bee-glue they bury the offending corpse. I have also found the carcass of a mouse similarly entombed in this same kind of an hermetic sepulchre. Solomon might have said: "Go to the bee, thou sufferer, and learn of her, sanitary wisdom."

The ants as the highest of insects, furnish many and wondrous examples of wisdom, skill, intelligence and thought. Ants have long held slaves, have long kept domesticated animals—their milch cows—to minister to their wants. They care for these as assiduously as we do for our kine. The ants plan their nests with reference to water, which is yet a thing of the future, when the entire land is dry and parcht. Then ants take their stored grain out to dry when it is wet by the storms, so that mildew will not destroy it. They clear land, plant and harvest crops, and even keep pets. They will permit any ant of their own family to milk their cows, but woe to the luckless ant from another tribe that attempts this petty larceny. Bees, wasps and ants will die for their home and kindred without a wince. If patriotism is among the highest of virtues, and sacrifice of life for country and kin the highest exemplification of patriotism, then shall we say that virtue is found only among the human species?

Hundreds of examples might be given of insect habits and economy that cannot be explained except that we grant these humble creatures of Nature the possession of intelligence.

I can only give one example to illustrate the wondrously delicate sense perception possest by insects. I have reared a single female moth in a large room and have had over one hundred males of the same species come in through an open window, though the opening would hardly more than admit one's hand. There are cases on record where, in like case, male moths have come down a stove-pipe to gain admittance into a room. Professor Lintner of Albany, N. Y., told me that he reared a female moth in a closed room, and upon going out the door he saw a large number of the males flying about the house. This recognition must come through the sense of smell, yet I have never been able to discover the least odor. Physicists tell us that insects can hear sounds which are entirely inaudible to us.

May it not be, then, one of the missions of the study of these lower life forms to exalt our appreciation of their habits and character; and at the same time make us more humble and teachable? Los Angeles Co., Calif.

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Notes and Comments on Florida.

BY MRS. L. HARRISON.

This is the sixth winter that I've lived at this place, and during this time I've received many letters from bee-keepers, seeking information and asking my advice as to whether it would be best for them to move their bees to Florida, and come here to reside.

If I remember correctly (and I think I do), W. S. Hart, of Volusia Co., Fla., advised all such to come and visit the State and spend at least one season here before moving.

Whenever I sail around this lovely Bay, or walk in the piney woods, I see evidences of wasted money and labor. People came here, built a house, grubbed land, planted trees, and fenced them, and when their money was exhausted, left the country, not deeming it worth while to close windows or doors. While traveling I meet tourists who spend the winter in different parts of Florida, and they tell the same story.

I think that there are localities in Florida that cannot be surpast in the production of honey. Wewahitchka—otherwise known as the Dead Lakes—is one of them; and where the black mangrove thrives are others. W. S. Hart told the writer, before I came to Florida, that the best honey-districts were very malarious, and abounded in annoying insects, and my observations verify the truth of it.

There is a resident here who formerly lived in Ohio, and who traveled around that State introducing the Langstroth hive, and transferred combs from gums and boxes into movable frames. Two or three years ago this gentleman told me that honey could be produced here at a profit if it only sold for five cents per pound. On my return in December I askt him, "How are the bees?" He said, "Don't know. All gone." I inquired of others whom I knew had kept bees, and some said, "Worms ate them up."

I called one day at the home of the Ohioan, and went out to the apiary. It was a little paradise—enclosed with a low picket fence, and the tasty, painted Langstroth hives rested upon a platform under a shed. I opened the gate, and going within I knockt upon the hives. All the occupants had gone, except at one, where only a few answered my summons. This was the loveliest apiary I ever saw, with its pretty white fence, and quince trees growing within. What became of the bees? Starved! There was a severe drouth, commencing in April and lasting until to-day (Dec. 20), when a heavy rain fell. There were a few light showers only. I'm told that in the back country there was more rain.

There are many different kinds of soil here, located on a quarter section of land. I'm located between two salt water bayous; the soil (if you may call it thus) is yellow sand. Spruce pines nod their plumes, and shed their needles upon my roof. It is high pine land, with that wonderful plant—saw-palmetto—interspersed with scrub oaks growing beneath. In the distance may be seen magnolias and ti-ties, showing that there is rich, black soil at their feet. In the silvery waters of the bay, the finest fish and oysters can be had—not for the asking, but the taking. On its banks may be seen the magnificent live-oaks, clothed in Nature's drapery—the moss of Southern climes.

Many pensioned soldiers have taken homesteads around this Bay. The inhabitants are generally from the North, who live here not because they can make money, but they have found health and freedom from pain, and can enjoy life better here than anywhere else. The water is soft, and can be had with driven wells; the air pure, balmy and resinous, from the piney woods. Many rheumatics have buried their crutches in the sand; catarrh washt away in the waters of the Bay, and kidney pains banisht to another clime.

Washington Co., Fla.

CONVENTION PROCEEDINGS

Report of the Michigan State Bee-Keepers' Convention, Held at Mt. Pleasant.

BY W. Z. HUTCHINSON.

The Michigan bee-keepers held their annual convention Jan. 1 and 2, at Mt. Pleasant. This town is decidedly the home of that famous honey-plant, the willow-herb. Bee-keepers in that vicinity reported bountiful crops. Most of them had secured as much as 100 pounds of surplus comb honey per colony. Had it not been for the weather, which was rainy, making the roads very bad, the local attendance would have been very large. As it was, the convention was the best attended that a Michigan convention has enjoyed in several years.

Pres. Aspinwall called the meeting to order at 7:30 p.m., and then read the following paper on

THE WINTERING OF BEES.

In the realm of invention success is only obtained,
When each part and each movement bends to the end that is gained.—L. A. A.

So in wintering of bees—hive construction—including thickness of walls, packing, ventilation, and entrance protection against drafts of cold air; also quantity and arrangement of the food supply and strength of the colony, are requisites bending to the one end—successful wintering. To exclude any one of these requisites will detract from uniformly successful results. With hives of the proper construction containing sufficient stores, bees may be wintered in the most exposed situations; and it matters not whether the hives face the north, south, east or west, like results will follow.

I shall treat this subject in reference to outdoor wintering, considering it as I do far in advance of any indoor method. The transcendent feature of outdoor wintering, is that of unrestricted flight; and with indoor methods, there is no compensation for its loss, even when the winters are extremely severe, and the periods of confinement long.

In considering the requisites for successful wintering, it may be well to note that success is frequently hinged upon very small things. The neglect in attending to the small affairs of life is sure to bring about disaster.

The matter of packing between hive-walls is not new, and with the most complete outfit in that line, disastrous results have occurred; hence, the skepticism in reference to successful outdoor wintering. The uncertain results attendant upon the use of well-packt hives, has given rise to questions as to the advisability of sealed covers, upward ventilation, passage-ways through the combs and above the frames—(the latter being afforded by Hill's device), size and shape of the frames. Such questions imply a want—a lack of some requisite.

Let us consider these points for a moment. With the accumulation of moisture, upward ventilation has been recommended as a means of carrying it off; and by the use of sealed covers, others claim that the animal warmth of the colony is best conserved. Again, others would have the combs provided with passage-ways through or above them to permit the outer portions of the cluster from freezing or starving.

For a colony to live in either a moist or cold atmosphere is at the expense of its vitality. If by an upward current the moisture is carried off, a corresponding evil presents itself in a lower temperature; and altho strong colonies may survive these conditions, fatalities will frequently occur among the weaker ones.

If we carefully consider the cause of moisture within the hive, possibly we shall be able to prevent it. The law of diffusion of gases in our atmosphere, also includes moisture which is known as watery vapor. Its diffusion is clearly manifest during damp weather, when it penetrates our homes, causing doors and drawers to be much swollen. Cool surfaces and cool currents of air cause its condensation; conversely, with a condition of warmth no moisture is visible, it being held in suspension. Within the hive, cold walls condense, not only that which is produced by exhalations of the colony, but by the general diffusion, bringing it from without.

Inasmuch as cold surfaces and cold currents of air cause condensation, the converse condition should prevent it. So, by the application of packing on all sides, as well as top and bottom, we largely overcome the surface condensation; and by a vestibule entrance, the currents of cold air are prevented. I use from six to eight inches of sawdust in the tray covering my hives, which not only prevents any upward current of air, but thoroughly retains the warmth. As additional security I use closed-end frames, which conserve the warmth of the colony between each range of combs.

With single-wall hives, the moisture must be carried off by a slow upward current of air, otherwise the sides and bottom-board will become saturated, compelling the colony to endure a condition which is disastrous to its vitality.

As to passage-ways through the combs, there is a difference of opinion. However, my experience leads me to conclude that they are unnecessary. It is true they afford an opportunity for an outer portion of the cluster to reach an adjacent inner comb-space, if the bees happen to be located directly over the passage-way, and the weather is warm; otherwise they serve no purpose.

It should be understood that the spherical form of the cluster is maintained by the tendency of each bee to reach the warmest locality. No knowledge of their location or condition as to queenlessness or otherwise is brought into requsition—it is simply a gravitating to the warmest locality, opposite an inner and larger circle of bees occupying an adjacent comb-space.

During the average winter weather passage-ways through the combs are of no avail, and the same is true of Hill's device, or passage-ways above the frames. Any space above the frames is contrary to nature; the bees invariably close all openings at the top of the hive, thus preventing any escape of warmth so necessary in cold weather. A colony to pass the winter successfully should remain clustered between the same combs they occupied in November until spring. When so clustered each comb occupied should contain sufficient honey for the entire period of confinement. This being advisable, no passage-ways will be required, providing the proper temperature is maintained.

I am still an advocate for ample winter stores. No colony should have less than 30 or 35 pounds. Let us bear in mind that with all the necessary precaution as to warmth and protection against drafts of cold air, a deficiency of stores is likely to cause disaster.

Modern hives with brood-chambers equal to the laying capacity of the queen, are considered best for obtaining surplus honey. Such, however, are not the best for wintering—the stores are usually insufficient. When all breeding is over for the season, the central combs are often deficient in stores. Here a good, practical feeder comes into requisition—one that can be used during the cold nights of October—one that will work successfully with thick syrup. Nothing is gained by compelling the bees to evaporate a large amount of water. I use about one quart of water to every 14 pounds of the best confectioners' A sugar. When early feeding is practiced thin syrup may be used; but later, empty brood-combs will necessitate further feeding.

I have touched upon feeding because it is a necessity with the limited comb surface of modern hives. With hives double in size, or much larger than the laying capacity of the queen, no feeding would be necessary in ordinary seasons. However, such would not be adapted to the production of honey.

L. A. Aspinwall.

T. F. Bingham—Why must the bees have so much honey?

Pres. Aspinwall—The bees often eat out the honey from the central combs, unless they are well filled, and then if the weather continues cold there is no opportunity of changing over to other combs. In the spring the bees breed up faster if there is abundance of honey in the hive. They are like human beings, if they have a good bank account they are not afraid to launch out and do business.

W. Z. Hutchinson—Did I understand you to say that you used 14 pounds of sugar to one quart of water? Quinby says 5 pounds of sugar to one quart of water for making feed for fall use.

Pres. Aspinwall—Yes, I use 14 pounds of sugar (confectioners' A) to one quart of water.

Mr. Hutchinson—How thick a syrup does it make?

Pres. Aspinwall—So thick that when it cools on top it is thick like candy. I feed it when slightly warm. It is fed in a feeder that comes right over the cluster. And, by the way, with such syrup as this, I don't care whether it is sealed or not. There is no advantage in giving bees a lot of water to evaporate. I feed until the bees will take no more.

Mr. Bingham—If 20 pounds of food will bring a colony through the winter, why give them more than that to keep warm?

Pres. Aspinwall—I am not sure that they do keep it all warm.

Mr. Bingham—I prepared my bees for winter last fall by furnishing each colony with 20 pounds of food, or rather, the bees and food weighed 20 pounds. If a colony had more than that amount it was taken away; if less, it was given enough to bring it up to 20 pounds. I expect that they will come through all right. I think it is actually injurious, many times, to have too much honey in the hive in winter. It is better to give the bees enough to bring them through the winter, and then feed them in the spring if any should need it.

Pres. Aspinwall—I don't want to be bothered with feeding bees in the spring. I wish to be able to prepare them for winter, and then not have to open a hive again, or look after them until the harvest approaches.

Mr. Hutchinson—I used to weigh my bees in the fall, and feed all of the colonies in which there was not enough food to weigh 20 pounds. I never lost any from starvation. I have weighed them when wintered in the cellar, and the average consumption was about 9 pounds per colony.

T. J. Fordyce—I winter my bees packt in planer shavings. I have it as thick as 18 inches on top. Colonies with a large entrance winter better than those with a small one.

H. S. Wheeler—My experience is the same.

Pres. Aspinwall—I am enabled to use a small entrance because I have an ante-chamber that catches the dead bees.

Mr. Bingham—My hive entrance in winter is only ⅞ of an inch long, and high enough to allow a drone to be dragged out. But my hive has a rim under it. The rim is ⅞ of an inch high, and remains there the year round. The entrance is above the rim, and thus it is not clogged with dead bees. I once used a deeper rim, but the bees built comb beneath, and I discarded it for the shallower rim.

Mr. Fordyce—I have wintered bees very successfully in the cellar. When brought out in the spring they were just about as heavy as when put in, in the fall. The stores were usually basswood and willow-herb.

Mr. Hutchinson—This matter of stores plays a very important part. The Wilkins sisters were very successful in wintering bees, and I have always thought that the character of the stores had much to do with their success.

Mr. Bingham—Fifteen years ago, when we were all losing bees, men living near these ladies lost bees, but they lost very few.

Mr. Hutchinson—If that is true, then their plan may be of interest. Each colony is packt in chaff on its summer stand. The chaff is from four to six inches thick on the sides, and perhaps six inches deep on top. Just over the brood-nest, above the packing, in the cover, is an opening 8 or 10 inches square. This is covered with wire-cloth to keep out the mice. Over this is a roof that keeps out the storms. Great care is taken that the entrances are kept free from snow.

POOR EXTRACTED HONEY.

Mr. Bingham called attention to some of the talk that took place at the recent Chicago, or Illinois, convention, in which bee-keepers were advised to pour off the thin honey or water that rises on the top of candied honey, allow the rest to "drain off" and then melt up the solid honey that is left, and the result will be something very choice. Mr. Bingham deplored the fact that such talk as this should be indulged in and be publisht, thus giving the impression that candied honey is usually found in this condition. Only honey extracted before it is ripe, or that has been improperly treated, is to be found in such a condition. We take a great deal of pains to put up our extracted honey in fine shape, with fancy, gilt labels, etc., and then talk about improving the quality of our honey by pouring off the watery part and melting up the solid part! It would look as though some of those who are talking about extracted honey really don't know what good extracted is. If we are to hold our trade in extracted honey it must be of the finest quality; extracted only when fully ripened, and then shut up where it cannot lose its aroma, nor absorb water. When this is done there will be no more talk about pouring off the thin, watery honey that rises on top of granulated honey.

Next came a paper by Mr. T. F. Bingham, of Clare Co., entitled,

PRINCIPLES IN APICULTURE.

Owing to my peculiar relation personally to this subject, I shall be compelled to introduce my own name, which I beg you to excuse. I do this not entirely in an egotistical light, though I am proud of my inventions, but as a matter of history. We all wish to know how those things which have been a pleasure to us have come about.

The first practical embodiment of a principle is regarded as an invention. The person so embodying a principle is regarded as an inventor; for instance, Mr. Porter, the inventor of the bee-escape.

It is said that 4,500 years ago the Chinese computed accurately eclipses. If so, the ancestors of Confucius were not only an ancient people, but a studious people. The earth was supposed to be flat. People coasted about the ocean's shore in boats. Not until the 13th century was the magnetic needle sufficiently known to be relied on for any considerable voyage. Columbus made the first remarkable voyage of discovery in which the compass played so important a part.

The early practical management of bees seems to have made little progress except in the size and form of comb honey receptacles. Numerous bee-books and bee-hives have been patented, but the pursuit wore a mysterious and superstitious air. It was envelopt in traditions and beliefs. It had, however, made substantial progress. Until the invention of the hanging movable-comb frame, by the Rev. L. L. Langstroth, and the publication of his most excellent bee-book, "The Hive and Honey-Bee," no important embodiment of principle entered into bee-hive construction, and progress was slow and full of doubt and belief. His invention and research gave to the practical bee-keeper and student a book containing all that is known of the natural history of the honey-bee, and markt and epoch in American apiculture. Supposed inventions sprung up like magic. T. F. Bingham, in 1866, embodied the movable-comb principle in the closed-end movable-comb frame. It was never popular, but it has survived. The lamented M. Quinby regarded the invention of such value that he embodied it in his hive, and the most extensive and skillful comb-honey producers in the world use it. James Heddon adopted it in a hive which is extensively used as a comb-honey hive.

The honey extractor, as applied to bee-keeping, was first embodied by Hruschka.

In implements of the apiary no one has gone through such diversified evolution as the bellows bee-smoker. Bellows bee-smokers lying flat on their sides were brought to this country by German bee-keepers before the invention of movable-comb frames. The lamented M. Quinby raised the horizontal German bellows bee-smoker to a perpendicular Quinby bee-smoker. The draft of the German and Quinby was probably about alike. The German had a vent-hole slide, which could be opened when not in use. The Quinby draft was through an open valve and the bellows. It is reasonable to suppose that either of them would lose fire if not frequently puft, and that fire could only be maintained in either of them except by using dry, rotten wood or cotton rags.

The continuous direct draft or Bingham bellows bee-smoker embodied the natural draft principle of a common wood-stove, and in no respect differed from it. Of course, it would burn sound wood or anything else, just as well as any stove in your parlor or kitchen. Opposite this open draft, but separated from it, the exhaust of the bellows pointed directly into the open draft. The blast from the bellows was forced across this open space into the draft current which was continually supplying the air necessary for the fire. This arrangement not only forced the natural draft and the air contained in the bellows into the stove, but carried with it a stream of air which continually prest itself forward to fill the vacuum caused by the blast, thus forcing from the smoker perhaps twice as much smoke as the bellows contained air. The principle was re-embodied in the "Simplicity" smoker and the new Quinby smoker, while in Europe and Canada it was copied without limit.

The honey extractor led up to the invention of the Bingham & Hetherington honey-knife. Careful analysis developt the fact that the sticking of flat knives in uncapping honey was due to the exhaustion of air under the blade. The new embodiment of principle developt a wide, thick knife, having a sharp, single beveled edge, upon which the knife rested, admitting air as freely under as over the blade—freely to both sides. It was copied in Canada and Europe.

It will be observed that while I have briefly alluded to the first embodiment of the principle underlying the various inventions cited, and with which you are all familiar, that the principle of the bent cap and cool handle first embodied by T. F. Bingham has not been mentioned. The principle has been copied as if it was a real invention in Europe and America.

In counting up the inventions pertaining to bee-keeping which have been long tested, weighed in the balance and not found wanting, inventions which no one has been able to improve, or improve upon, I find no other State has made so many valuable inventions since the invention of the hanging movable-comb frame by the Rev. L. L. Langstroth, as has Michigan.

T. F. BINGHAM.

N. E. Doane—I have used both the Crane and the Bingham, but I see no particular difference. The Crane has a hinged cover, and is more convenient for me, as the Bingham cover sometimes drops off and it bothers me to find it as my eyesight is poor. For people with good sight, I presume that would not make much difference.

Mr. Bingham—When bees are inclined to make trouble for the operator a great cloud of smoke coming from the windward is a great comfort in keeping away robbers. A smudge in a kettle or pan, set down to the windward is a great thing. The bees seem to realize that there is "something in the air." It is to meet this need that I have made a new smoker. I call it the "Smoke Engine." It has a 4-inch barrel.

Mr. Bingham had on exhibition one of his "Smoke Engines."

(Concluded next week.)

Questions AND Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Clarifying Honey-Vinegar.

Please say if you know *how* Mr. Cowan uses isinglass to clarify vinegar; and what amount to the barrel of 45 or 50 gallons. I have about 15 barrels on hand, and would like to learn a quick way to settle it—so would others.

"SKYKE."

ANSWER.—Sorry to say I don't know a thing about it. Who will help us?

Section Starters and Weights—Separators.

1. In putting foundation starters in sections (taking Dadant's foundation as a sample) do you use thin or extra thin for the upper piece? What weight for the lower piece?

2. I use Heddon cases for sections, with pattern-slats 2 inches wide for 2-inch sections. Can I change to 1⅞ section by using ⅛-inch separators without changing bottom slats?

3. Your average weight of sections for your honey of 1896 was given in Gleanings at a little over 15 ounces each. With your system of using separators and two pieces of foundation, are the sections nearly all uniform, or do they vary much when filled?

4. With your experience with separators, would you advise others not using them, to make the change where the honey is partly sold in the home market, and some of it shipt to a distant market?

H. E. M., Wisconsin.

ANSWERS.—1. I use thin foundation for the upper starter, and have used the same for the lower, but it is more inclined to lop over than foundation a shade heavier. Foundation with high side-walls does best for the lower starter. I think extra thin would hardly do at all for bottom starters. If made deeper than a half inch it would fall over badly, and if less than half an inch the bees would likely gnaw down a good deal of it. Of late there has been some talk about foundation with cells ¼ or ⅜ inch deep, and if that ever comes on the market I think I should be willing to pay a high price for it to use as bottom starters.

2. I think you could, but I'm not very familiar with the matter. If you change from 2 inches to 1⅞ you will very likely want to change to 1¾, and it may be well for you to think whether you don't want to change to 1¾ in the first place.

3. There is more uniformity with sections filled or nearly filled with foundation than where only small starters are used, and there is more uniformity with separators than without. But you will see that I'm dodging your question, and I hardly know how to answer it by saying yes or no. For I don't know for certain just what you may mean by "nearly all uniform." Very likely I'll come nearer making the right impression by saying they are not nearly all uniform. For altho the great mass of my sections this year kept somewhere near 15 ounces each, some of them were as much as two ounces less and others as much more, making a total variation of a quarter of a pound. But there's no certainty that next year will give the same average weight. If honey comes in with a rush the sections will be heavier than with a light flow. Sections may be more plumply filled out early than late in the season, and *vice versa*. There may also be a difference in colonies under precisely the same circumstances, but I'm not sure of this.

4. Yes, I believe I would. Sections used with separators don't look so plump and well filled out, but for shipping they are almost a necessity, and even for the home market it is much easier to handle sections that are separatored without danger of damaging them.

I thank you for the kind words in your accompanying letter, which I assure you are thoroughly appreciated.

Questions on Wiring Frames.

1. How many of our bee-lights have seen, or personally know of, perpendicular wiring giving perfect satisfaction?
2. What objections are sometimes brought against it, if any?
3. How many wires are used?
4. Is the kerf practical with perpendicular wiring?
5. How many prefer horizontal wiring?
6. Is the kerf practical with that? E. P.

ANSWERS.—1. Many frames have been filled with combs built on perpendicular wiring that have given good satisfaction.

2. If the bottom or top bar should be light, they will be bent or curved toward each other by means of stretching the wires tight.

3. That depends upon the length of the frame. Enough so the wires shall be about 2½ inches apart, but the exact distance is not important.

4. With perpendicular wiring you cannot use a saw-kerf in the top-bar in which to insert the foundation.

5. At one time, most of the wiring was perpendicular, but perhaps one way is used as much as the other at the present time.

6. The saw-kerf in the top-bar works nicely with horizontal wiring.

Number of Frames in the Brood-Chamber.

Does it make any particular difference as to the number of brood-frames in a hive? I have some box-hives, but there are only nine frames in them? I have noticed that most hives have either eight or ten frames.

I am much pleased with the American Bee Journal.
C. H. P., Nebraska.

ANSWER.—Very decidedly it makes a difference how many frames are in the brood-chamber. Many a wordy war has been waged as to what number is best, but perhaps no one would advise less than 5 Langstroth frames, nor more than 16. The great majority say 8 or 10, and very often to hear the discussions one would think that no other number could be used. Just why so few take the middle ground and adopt 9 frames is perhaps not easy to say. If half the number should say 8 was better than 10, and the other half should say that 10 was better than 8, it would seem the most reasonable thing in the world to conclude that 9 was about right. However, conditions and locations have something to do with it. As a rule, a larger number of frames are allowed for extracted honey than for comb. Altho the large amount of discussion as to size of hives has left the matter still unsettled, the probability is that it has made the general feeling a little more favorable toward the larger hives than it was.

It isn't entirely clear just what you mean by saying you have "box-hives" with frames in them. As generally used, the term "box-hives" means hives without movable frames in them. It is true that most movable-frame hives are boxes, however, and used in that way you might speak of box-hives with frames to distinguish them from frame hives with bodies of straw.

Importing Italian Queens.

I would like to import a queen or two from Italy next season. Can you give me the names of two or three extensive bee-keepers in northern Italy?

Can you sell me one or two good queens after they lead out a swarm next summer—queens two or three years old, and daughters of imported mothers? What would be the price?
INDIANA.

ANSWER.—After spending considerable time in searching I have failed to find a single advertisement of a queen-breeder in Italy. I have no queens to sell, nor at present have I any known to be daughters of imported mothers.

Packing and Shipping Bees.

Please give full directions as to packing and when to ship bees. M. G., Kansas.

ANSWER.—The manner of packing depends somewhat upon the kind of hive, and to some extent on the season of the year. They can be shipt any time in the year when bees are flying. If the weather is comparatively cool, as in spring and fall, they do not need so much ventilation as through the warm months. There is little danger, however, of giving too much ventilation at any time. Just how the ventilation can best be given depends upon the hive, but with almost any hive you can have the entire top covered with wire-cloth, and that makes the colony safe against smothering. If the weather is hot, the bees need a supply of water on their journey, which may be given by means of a sponge or a roll of rags saturated with water and placed on top of the frames.

If the hive contains loose-hanging frames, these must in some way be made fast. This may be done by driving nails through the ends of the top-bars down into the end of the hive, but the nails should not be driven in their entire depth, leaving the heads projecting so they can be drawn with a claw-hammer.

When placed on the cars, let the frames run parallel with the track; on a wagon they should run crosswise.

Moving Bees by Wagon and Railroad.

I want to ship my bees about the last of April or first of May about 120 miles by freight. They have to be hauled 10 miles on a wagon to reach the loading station, and stay 24 hours in the car in transit. How much ventilation should they have at that time of the year, as it is quite cool yet and colonies not very populous yet here in Minnesota. They are in 8-frame Adam Grimm Langstroth hives, with a one-inch honey-board on top, and ¼-inch bee-space between the brood-frames and honey-board. Would it do to cover 4 or 5 one-inch holes in the honey-board, also a one-inch hole at the rear end of the hive close to the bottom, with wire-cloth, and have the entrance shut up tight with a board? or would it be better to remove the honey-board and cover the hive with a piece of wire-cloth as big as the hive, with no ventilation at the bottom? M. R., Minnesota.

ANSWER.—Either plan you mention will probably be all right, the one giving the larger ventilation being preferable. I have often hauled them a distance of five miles with only a large entrance for ventilation. But I think it is the Dadants that say it is better to have the entrance closed and have abundant ventilation elsewhere, for the bees being used to find their way out at the entrance will all crowd there and may be killed. You will do well to have a sponge, or a rag rolled up and filled with water somewhere in the hive—on the top-bars, if there is room—and when you change from the wagon to the cars you can pour some fresh water on it, if dry.

☞ See "Bee-Keeper's Guide" offer on page 45.

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Editorial Comments.

A Great Honey-Producing Country like Southern California, says J. H. Martin, of Los Angeles Co., is never entirely drained of its honey. Many bee-keepers supposed that owing to a total failure of the crop the past season, that honey would be scarce and command a higher price. But small lots keep coming forward, which shows that considerable honey is held over every year. It would require several total failures to strip the market of honey, and to even advance the price.

◆

The Wisconsin Convention was held according to announcement, last Wednesday and Thursday (Feb. 3 and 4), and we had the pleasure of being present. It was a good meeting, tho the attendance was not large. We expect to publish a condenst report soon. Next week we will have something to say concerning our trip, and some of the good Wisconsin bee-keepers. The following were elected as officers for the ensuing year:

President—Franklin Wilcox, of Juneau County; Vice-President—Jacob Huffman, of Green County; Secretary—E. France, of Grant County; and Treasurer—Harry Lathrop, of Green County. All except Mr. Huffman were re-elections.

◆

Granulated Honey and Sour Honey—We have received the following communication from a honey-dealing firm in Minnesota, dated Jan. 21, 1897:

> The editorial comment on page 40 is as interesting to us as anything which Mark Twain has written for a long time, the only difference is that Mark Twain drew on the imagination, and you have drawn on the facts where misery loves company. Our firm has been getting experience as to granulation of honey at the regular local freight rates. We have a Dairy and Food Commission in Minnesota, as you are doubtless aware, and they are trying to earn their legislative appropriation, and are well qualified for the position. Any way, they are on our side, and against a certain new firm west of here, who ordered one case of honey from us, and received granulated alfalfa. This firm answered us that the honey was solid, and would have to be put up in better shape to fool the people with. As the freight out of that was less than a dollar, we thought it was one of the least expensive of our experiences in the same line, and have sent them your editorial, and askt them if they would not send us along some cigars! Now, Mr. Editor, if those cigars come, we will not say anything about the freight on the honey, but will divide up the cigars.
>
> We would like to know how honey, which arrives in barrels and is sour, can be handled so as to make it merchantable. Perhaps we ought to offer to pay for this information, but we think if any experienced bee-keeper who is kind enough to inform us on this, will realize that he is doing some shipper a benefit, he will not hesitate. Besides this, if we do not get the cigars, we will give an order on that new firm west, to pay for the information. But we are serious, as we have some sour honey here, and want to put it in shape. A. W. S.

We hope our jovial friend, A. W. S., will at once withdraw that request for "some cigars," if he expects us to help him out with them, for we are too old now to learn the use of the filthy weed in any form. How any man can find comfort in narcotics is beyond us. Aside from the financial waste, think of the injury to one's health! We hope the day may soon come when all men will cease to befog their brain and shatter their nerves with tobacco and strong drink. To our young men readers we would commend the advice of the noted John B. Gough—among his last words—"Young man, keep your record clean.".

Now, to turn from one sour subject to another, what about the sour honey that A. W. S. asks about? It seems to us that heating it to a certain degree will nearly restore its original flavor. How is that? Are we right, or not? Will some one who knows, kindly furnish the desired information? We shall be glad to publish it.

◆

Galvanized-Iron Honey-Tanks.—The Rural Californian says that the matter in relation to safe storing of honey in galvanized-iron tanks has been settled for California for several years. Every bee-keeper who produces any quantity of honey uses these tanks. Honey is allowed to stand in them, sometimes for several months, without detriment to the honey.

In that dry climate, where wooden receptacles shrink and fall to pieces, galvanized-iron plays an important part not only in the apiary, but for water-tanks and other purposes. If galvanized-iron is a settled success in California, it should be in all parts of the country.

◆

New Bee-Papers Again.—In Gleanings for Jan. 15 is an interesting article by Dr. Miller, on "Defunct Bee Journals"—he mentions 16 that have "gone the way of all the earth," during the past 25 years. But he perhaps has been able to discover only about half of them, as many are entirely forgotten.

The question is raised whether or not the old and establisht bee-papers should encourage the new ones even to the extent of noticing their birth. The conclusion seems to have been reacht, that it is wrong even to so much as notice their birth, as in all probability they can live but a short time, and the sooner they die the less money will their publishers and subscribers lose. We believe this is correct, when we consider that out of perhaps 50 bee-papers that so far have been started and finally stopt, in America, only about a half dozen to-day give any evidence of continuing for any great length of time. Perhaps a half dozen is putting it pretty high—but time will tell.

A bee-keeper in the West, who was at one time also a large supply dealer, referring to this subject, wrote us as follows, Jan. 24:

> FRIEND YORK:—I send you by this mail a markt copy of a supply dealer's circular, and yet it was hardly necessary to mark any part of it, as it is all about one thing. I suggest that you make a few quotations exactly as they are, and then say that his 1897 circular shows a great improvement, and contains an announcement and prospectus of a new quarterly bee-journal that he proposes to establish. (Whew!) I presume you received one. Just think of paying 25 cents for four papers that emanate from such headquarters! Could you not say that you do not understand how people would thus throw away their money when a three months' subscription to any one of the well-establisht would give so much more for their money? But, really, I do not believe the thing will be launcht.
>
> It beats all how some supply dealers do squirm under

their postage bills—and this is the mainspring to the whole outfit of these little journals that die "a borning." I have paid as high as $600 in a year for one-cent stamps, and $600 more for the circulars, addressing and mailing, and I have had my ups and downs, and made mistakes, but I always had grace enough to pay my postage and printing bills like a man, and leave the publishing business to publishers.

* * *

Why, yes, we will quote just two paragraphs from the "supply dealer's circular" referred to, taken from some advice on "Marketing Honey"—a very important subject. Here they are, *exactly* as printed by the would-be publishers of a bee-paper:

> "This is a part of our persuit that does not receive the attention that it should. The marketing of honey should receive as much attention as the production of it, what is the use producing honey if you can not sell it, this well surly be the result if the market continues to be fluxuated with honey placed upon it just as it comes from the hive; we have sold honey upon the city market more or less for a number of years, and find it goes about like this: you go to a grocer with a case of honey and ask him 15 cents for it, he laughs at you and says that his neighbor has bought some honey for 10 cents, and is selling it for what you ask him, of coarse he can not buy honey for what his competitor is selling it so down goes the price.
>
> "Our extracted honey should be put up in either tin or glass packages, and neetly labeled with directions and producer; so few people understand the granulation of honey that it should never be sold without being labeled, and the label bearing explination and directions, or an explination verbally."

Oh, glory! Think of a whole paper gotten up in that style! And yet, people who exude such samples of literary ignorance aspire to be *publishers!* Get the smelling-bottle—quick!

Truly, the field of bee-journalism is not extensive enough to support very many bee-papers in the way they should be supported in order to be just half-way profitable. There is not a deserving bee-paper to-day that has quarter the number of paying subscribers it should have in order to attain the fullest success, and enable its publisher to get out something that will be a credit to the pursuit which it is desired to represent.

For a long time we have felt that we do a real kindness to a new bee-paper to simply say nothing about it when it starts, for, in all probability, in a few months—or at most a very few years—we'd have to write its little epitaph. Our most unselfish advice is: Keep out of new-bee-journalism, unless you have money you prefer to get rid of in that way in preference to burning it.

Physiological Effects of Bee-Stings.—A Dr. R. S. Lindsay, of Philadelphia, recently askt Gleanings for "information regarding the effects of bee-stings on the human system." In reply to the request, Editor Root wrote him as follows:

Dr. R. S. L., Philadelphia—

Dear Sir:—The average bee-keeper is not at all affected by swelling after being stung. He experiences the same sharp pain, but no fever or other unpleasant effects follow after two or three minutes. The system seems to become inured. But occasionally, when the bee stings along a vein, there is an after-effect. We do not know to which school of medicine you belong; but the homeopathists use a great deal of *apis mellifica* in the form of a tincture. We have been supplying Boereck & Tafel, of New York city, with bee-stings in lots of 10,000 at a time. We are supplied with a wide-moutht bottle holding about two ounces, and filled about two-thirds full of sugar of milk. A comb of bees is placed before a window, and from this comb the bees are pickt off one by one with a pair of tweezers, while another pair removes the stings, the latter dropping into the sugar of milk. The bee in each case is crusht immediately before the removal of the sting. In this way the stings are removed until the whole number are in the jar, when it is corkt and sent to the parties named. The apiarist can usually work only three or four hours a day at removing the stings; and even then he experiences pain in the eyes, and a sort of sickness from inhaling the odor of the poison.

As you see by the references below, there can be no question but that stings do relieve certain kinds of rheumatism; but just what kinds I am unable to say.

Ernest R. Root.

The "references" mentioned were those where different writers had given their experience with bee-stings, which the Doctor will use in reading up on the subject. He is investigating the matter in a scientific manner, and will publish the results as he finds them, "giving the physiological effects of bee-stings, especially so far as they relate to the cure of various kinds of rheumatism." This will no doubt be very interesting.

The Weekly Budget.

Mr. Sigel Brautigam, of Grant Co., New Mex., says: "I will take the 'Old Reliable' as long as I am interested in apiculture; and no one interested in this occupation should be without it."

Mr. B. S. K. Bennett, of California, who publisht some reflections upon the character of Mr. Geo. W. Brodbeck, of that State, has made a retraction, and says that "as Mr. Brodbeck is willing to 'forgive and forget,' we trust the bee-keepers will do the same." We are glad the unpleasant matter has been "fixt up," and are pleased to give this notice of the satisfactory outcome of a disagreeable condition of affairs.

Mr. A. D. Watson, of Tioga Co., Pa., writes us as follows: "I am glad to see the American Bee Journal expose the dishonest dealers in honey. I have received some of their flowery circulars, soliciting shipments of honey, and if it had not been for the timely warnings of the American Bee Journal I might have been caught napping. Therefore, I think the price of subscription for the Bee Journal a very profitable investment. Long prosperity to the 'Old Reliable.'"

Mr. S. C. Swanson, of Minnesota, when renewing his subscription, wrote: "I like the American Bee Journal the best of any bee-paper I ever saw. Every one that has bees should read it. I am sure they will find that they never invested a dollar better in their bee-business."

Dr. N. Ostrander, of Thurston Co., Wash., had this to say in a letter dated Jan. 29:

> "The Bee Journal for Jan. 14 failed in reaching me. Until I mist this number I never realized fully its value. I do not believe there is another publication in the country affording the same amount of valuable information for the same amount of money."

We are always glad to replace lost numbers of the Bee Journal, if we are notified in time. If you don't receive a certain number, better not wait more than two weeks after it is due before asking for another.

Mr. Wm. Beecroft, of Canada, when remitting for 1897, said: "I am well pleased with the American Bee Journal, and think it is one of the best and cheapest of the kind publisht."

Mr. S. T. Pettit, of Ontario, Canada, has sent us a very kind invitation to stop off with him a few days on our return from the Buffalo meeting, next August or September. Now, we'd like to do that very thing, but really we cannot be away from the office here any longer than is absolutely necessary. We cannot afford to employ sufficient help so that we can very well leave for more than three or four days at a time. So it is quite out of the question to "go visitin'" as we'd like to do, and as several have already generously invited us. We appreciate the invitations very much, and only regret that we are compelled to decline them, for we would so greatly enjoy accepting if it were possible for us to do so.

Mrs. R. A. Fifield, of New Hampshire, wrote thus when renewing her subscription for 1897: "I would not like to get along without the Bee Journal, for it is a great help. It comes every Friday."

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General Items.

Clovers in Good Condition.

The weather is fine, and the snow on the ground is five inches deep. I moved my bees 15 miles on the mudboat and did not lose a single bee. I find them in good condition, and there is a fine prospect for a nice honey-flow this year. White and crimson clovers are in good condition.

JOHN V. EMMERT.

Boone Co., Ind., Jan. 23.

Size of Apis Dorsata.

While looking at the respective engravings of the Apis dorsata (worker and drone), as given in Bulletin No. 1, by Frank Benton, the thought struck me that with all that had been said, pro and con, about this wonderful bee, there may have been something overlookt. By the pictures you would suppose they were very nearly the same size, while their length is the same. We have just been priding ourselves that we had overcome that drone business, by the use of full sheets of foundation. Now we don't want to fall clear downstairs after climbing so high.

Will some one who has seen it, or knows something of the bee, please give us a little light on the subject? A READER.

Report for the Season of 1896.

I commenced last spring with seven colonies, six strong in bees but no honey; the other was very weak in bees, and I had to feed them till the last of June to keep them going. Then basswood came. Talk about honey coming in! I never saw the like. They filled a set of extracting-combs and all the spare room in the brood-chamber. I sent for six queens to an Illinois breeder; he sent me five by return mail; four were all right, but one was nearly dead when she arrived. The other came in due time, safe and sound.

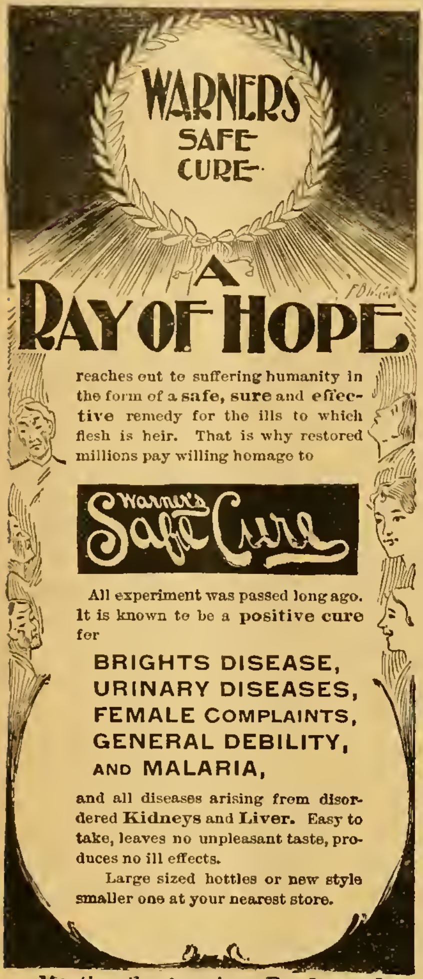
I heard of a bee-tree being cut in the neighborhood, so I took advantage of that. I got the queen and introduced her all right. From the time basswood commenced till the middle of September the bees did well. I now have 13 colonies in the cellar, strong in young bees, and with plenty of good honey, besides all my family can use. S. F. SKAIFE.

Dubuque Co., Iowa, Des. 30.

Poisonous Honey—Storing Over Brood

I read the article on poisonous honey, written by Dr. W. M. Stell, on page 626, 1896. Now, I came from Pennsylvania, and have seen lots of mountain laurel, and bees at work on it, and I never heard of the honey killing anyone. I think if the Doctor had taken the nectar deposited in the flowers, instead of the flowers and leaves, he would not have suffered so much pain, and worried so much about the boy. On the same principle, you might say a maple tree would not make sugar because you cannot make it out of the leaves; or a may-apple is poisonous because we know the roots are. I do not think our friend, the Doctor, can find a pound of poisonous honey in his yard, altho his bees workt on laurel, unless he fed them extract of the leaves.

In the "Question-Box" there is a question in regard to storing honey over the brood. I cannot agree entirely with the answers, altho by some of our leading bee-men. They say the bees try to get as far from the entrance as possible. I cut six bee-trees, and saw four more cut the past summer. In every case the honey was above the brood; in two cases there was a small cavity above the entrance, which was filled with honey, and the queen was below with her brood, some 10 or 12 inches. The comb above was old, and that below



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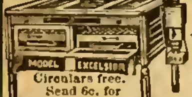

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was new. Now if they had wanted to get away from the entrance, they had 10 feet of hollow tree below them.

Another one was on a limb running out at an angle of about 45 degrees, and was broken about four feet from the tree. The bees went in at the top, and built down—old comb at the top and new at the bottom, but brood below. These three trees were two years old. This proves to me one of two facts, or perhaps both. That is, the bees prefer to store above and drive the queen down and build below for her or it is a matter of choice with the queen. She seems to like the lower end and edges of the comb, but if comb honey is desired, and sections used, I do not think it will make much difference whether above or below, as long as they are handy for the bees to get to, as the queen does not like to climb around in such small spaces.

Atchison Co., Kans. E. S. SNELL.

Yellow Sweet Clover.

I don't believe the yellow sweet clover is a better variety than the white, but there may be more than one kind. I have seen the yellow growing in this city for years, but never saw many bees on it, and hence concluded it was of far less value for honey than the white. For that reason I have never tried to save the seed, nor spread its area. I saw plenty of it in the Salt River Valley, Ariz., in 1893, growing among the alfalfa, but the bee-men out there told me it was of no value as a honey-plant. They called it "*sour* clover," I think, and said they regarded it as a nuisance as a pasture-plant. Still, as before stated, there may be a better kind of the yellow variety, and the Nebraska lady may have it, but I am not yet convinced that all she says is true, or will prove true in other localities.

A. I. Root once said that *white* sweet clover was not very much of a honey-plant near his place in Ohio, but since then he has changed his mind. A single plant, or even a few plants in a place, may not secrete much honey, but a large plat of it may do much better. M. M. BALDRIDGE.

Kane Co., Ill., Jan. 20.

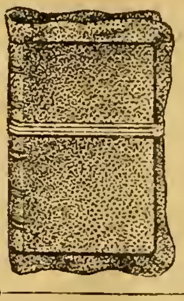
A Full Report for 1896.

I have been thinking for some time that I would send in my experience with my bees for the last season. I came to this place about Oct. 1. 1895. I saw there was quite a quantity of sweet clover growing here, but not much other bee-forage, neither did I see a honey-bee all the fall, nor hear of any being kept near here. I thought when it came spring I would get a few colonies and try what I could do. I bought 5 colonies in the winter, and they were delivered April 17—3 good ones and 2 that were light and weak in bees. I got some feeders and went to feeding the light ones, and after a long time I thought I could see an increase in the number of bees.

The folks told me that the sweet clover would bloom about the middle of June. I could not see much else for the bees to work on. There is very little fruit here, but lots of dandelion, and a good many willows, which bloomed full, but I did not see a bee on the willows. I saw the first sweet clover blossom May 28 (fully two weeks sooner than I expected), and three days later the bees were making merry over it.

My first swarm came out June 6; the 2nd swarmed June 17; the 3rd, June 25, and July 4 No. 3 cast a second swarm. No. 4 swarmed and went into No. 5, and staid there and loaft till they were reduced to a usual size colony, and I could not get them to do a thing in the super.

Now here is a question for Dr. Miller: Could I have divided that colony and given most of the frames and brood and all the bees that would stick to them and a queen, if I could find one, to another hive? And would it have been a success? Or how should I have workt them, and filled the other with frames of foundation? (I can't



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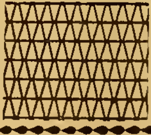

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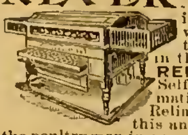

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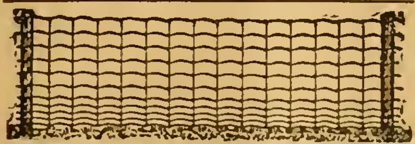
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get it just as I mean, but perhaps you can understand.)

I put all the new swarms into 10-frame hives, on full frames of foundation. I then set them on the old stand, turning the old hive away a quarter, and the third day having them straight side by side, and the 7th or 8th day removing the old hive to another stand. It reduces the old colony very low, and I don't know but too much so, for only two of the old ones workt a bit in the supers. One filled about a dozen, and some partly-filled ones, and one filled 28 sections and some partly-filled ones.

This was my first season with sweet clover, and this is what it has been here: Bees were working on it strongly the first week in June, and there was a continuous bloom until the frost killed it. By the side of the railroad, where it was cut early, when it was about two weeks in bloom, and not cut very close, it came on again quickly, and very thick, and made a splendid forage for the bees till the very last. Where it was cut later, and the seed had ripened on the top branches, if cut close to the ground a great part of it was killed, but if cut higher it came on and made quite a show, but not nearly as good as that cut earlier. Where it grew unmolested it was from 4 to 6 feet high, blossomed freely, and after it was ripe and lookt all dry from a distance I could find blossoms near the ground, and bees at work all through it.

There was quite a show of golden-rod last fall, but the bees did not work on it till quite late. It was not to be compared with sweet clover here last year.

Now I will give the record of my first swarm: It was hived June 6, in a 10-frame dovetail hive, on full sheets of foundation. Three days after I put on it a super of 28 sections; the 25th the bees swarmed out. I hived the swarm in a 10-frame hive, on full sheets of foundation, and set it on the old stand. I took off the 2nd super of 28 sections, and took the 3rd super from the hive they came from, and put it on the last hive. Well, they filled the 10 frames and gave me 3 full supers, and one with 12 full and some partly full and capt over, and I have taken one full super of 28 sections, and one with 14 full sections, and more partly full from the hive they swarmed out of—that is, the hive I put them into when they first swarmed, June 6.

Well, I figure that the swarm of June 6 gave me 6 supers of 28 sections each, besides the 2 supers last taken off, which will more than make up all that was lacking in the first six, besides the partly finisht ones: and then there are the 2 brood-chambers solid full of bees and honey. Result: 168 sections of honey and 2 good colonies of bees from one colony in the spring!

Colony No. 2 gave me 1 swarm and 124 full sections of honey, and a few partly capt.

Colony No. 3 gave me 1 swarm and 94 full sections, and some partly capt. It also gave me a second swarm that filled a 10-frame body, and is in splendid condition.

Nos. 4 and 5 gave me nothing but new experience, and to-day, as Mr. Dadant would say, "they are over-fat." I would like it if there was less honey and more bees. My 5 original colonies I increast to 10, and got 426 sections of honey. I sold the first half at 17 cents per section, and one-half of the last at 15 cents, and the balance I have on hand, and think there will be no trouble to get rid of what we don't use. How is that? Not bad, if you count the whole 5 old colonies in; but if you only count the three that did anything, it makes a good average.

Cook Co., Ill. EDWARD H. BEARDSLEY.

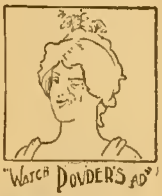
The Home Market and Quotations.

My report for 1896 is as follows: Spring count, 56 colonies, increast to 69, and took 7,000 pounds of honey of good quality, about 6,000 pounds being extracted. I bought 26 colonies last fall, making 55 colonies, which seem to be wintering well on the summer stands, packt in chaff.

My honey has all been sold (except three or four hundred pounds now on hand) in

For a knife that will cut a horn without crushing, because it cuts from four sides at once get
THE KEYSTONE DEHORNER
It is humane, rapid and durable. Fully warranted. HIGHEST AWARD AT WORLD'S FAIR. Descriptive circulars FREE.
A. C. BROSIUS, Cochranville, Pa.
40E13t *Mention the American Bee Journal.*

One Cent invested in a postal card will get my large Catalog of All Root's Goods. Send list of what you want and get price.
M. H. HUNT, Bell Branch, Mich.
WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.



SEE THAT WINK!
Bee-Supplies! ROOT'S GOODS at Root's Prices.
Pouder's Honey-Jars, and every thing used by bee-keepers. Prompt service, low freight rate. Cat. free. Walter S. Pouder,
162 Mass. Ave.,
INDIANAPOLIS, INDIANA.
WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

LUNG DISEASES.
30 years' experience. If your case is sufficiently serious to require expert medical treatment, address
Dr. Peiro, 100 State St., Chicago.

BEST ON EARTH!!
18 years the Standard. The 4-inch "Smoke Engine." Is it too large? Will it last too long? Will save you lots of money and bad words. Send for Circular. 6 sizes and prices of Bingham Smokers and Knives.
T. F. BINGHAM, Farwell, Mich.
5Atf *Mention the American Bee Journal.*

☞ IF YOU WANT THE
—BEE-BOOK
That covers the whole Apicultural Field more completely than any other published, send $1.25 to Prof. A. J. Cook, Claremont, Calif., for his
Bee-Keeper's Guide.
Liberal Discounts to the Trade.
Mention the American Bee Journal.

CARLOADS—
Of Bee-Hives, Sections, Shipping-Cases, Comb Foundation, and **Everything** used in the Bee-Industry.
I want the name and address of every Bee-Keeper in **America.** I supply Dealers as well as consumers. Send for catalogs, quotations, etc. **W. H. PUTNAM,**
RIVER FALLS, Pierce Co., WIS.
Mention the American Bee Journal.

Cash PAID FOR Beeswax
For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 25 cents per pound, CASH; or 28 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly,** for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,
GEO. W. YORK & CO.
118 Michigan st., CHICAGO, ILL.

FEED YOUR BEES
WITH BASWOOD. PROTECT THEM WITH EVERGRENS.
100, 2 to 5 feet, $10. 100 Baswood Seedlings, $1. Delivered free. Other sizes just as cheap. 50 $1.00 Bargains by mail. Millions to select from. Also Fruit Trees, Small Fruits, Vines, etc. Liberal cash commissions for clubs. Illustrated catalogue free. Good local Salesmen wanted. Address
D. HILL, Evergreen Specialist, DUNDEE, ILL.
4E6t *Mention the American Bee Journal.*

the home market. I am talking of starting an out-apiary in the spring.

Now a few words about bee-keepers getting new subscribers for the American Bee Journal. I think the honey market quotations in the Bee Journal is one important cause of not getting more subscribers. I dare not let any of customers, nor anyone in the vicinity of my market, see the Bee Journal, on account of the market quotations, which are very much less than we get at home. It is no way to create a home market. On several occasions my customers have gotten onto said quotations, and would say, "Why, here honey is quoted so and so." Then I would have to make a little speech to hold my customers.

Very much more might be said on this side of the subject, but I will not take more space now, but I consider this sufficient excuse for bee-keepers who have a home market, not scattering these market quotations in their locality. B. W. PECK.

Ashtabula Co., Ohio, Jan. 23.

[Well, this is a new reason for not securing new subscribers—the first time we have ever heard it advanced. But we think Mr. Peck's "Peck of trouble" would be avoided if he were to solicit subscriptions only among those who already have bees. It is not our intention to urge starting more people in the bee-business, but only to get every present bee-keeper to take the Bee Journal. It will often be the means of educating them so that they will not break down a good home market, as they might do if without the Bee Journal. It would also help them to produce a nicer article, perhaps.—EDITOR.]

Bees Wintering Finely.

My bees are wintering finely. We have a big snowstorm to-day, and a big blow with it. Up to this time we have had no sleighing. HENRY ALLEY.

Essex Co., Mass., Jan. 28.

Honey the Surest Crop.

I am wintering over 50 colonies of bees. My last year's crop of honey was fairly good. It does not seem to matter what kind of a summer it is, I am the surest of that crop of any. I have 80 acres.

I like the American Bee Journal very much, and it is the first paper that I open and read, usually, when receiving my mail. HOMER SCOTT.

Oakland Co., Mich., Jan. 29.

Reviving Starved Bees.

I had an experience with a colony of bees that was starved to death, as it were. My brother, who lives one mile from me, last summer caught two swarms of fine bees, but one failed from some cause to get enough to winter on. I told him to feed them, and gave him the rule for feeding, as I had learned it through the American Bee Journal. But he failed to feed them till it was too late. On Dec. 22 I was there and askt him how his bees were getting along. We went upstairs where he put them; he opened the hive of the one that was short of stores, and the bees were dead, for all we could tell by looking at them. He was going to brush them off the comb, and melt them up for wax, but I took some of the bees in my hand till they were warm, and they began to crawl around. I told him they were not dead, but he would not believe it. Nevertheless, he told me I could experiment with them, so I took them downstairs and warmed them. Then I followed the directions given in the "A B C of Bee-Culture"—sprinkled them with sweetened water. It was amusing to see the little things as soon as they were strong enough to carry feed to their less fortunate companions. I told his wife how to make the "Good" candy, and by the time it was made the bees came to life, as it were; they crawled upon the combs and were buzzing away as merrily as if they had had no mishap. We gave them the "Good" candy, and put them down cellar. The last I saw of them they were just roaring.

Ogle Co., Ill., Dec. 24. M. D. KINYON.

Winter Report.

My 68 colonies of bees in the cellar are quiet with the temperature at 38 degrees, while outdoors it was 10 degrees below zero this morning, and 15 degrees below zero yesterday morning. I also have some outside, with corn-stalks packt around; some in double-walled hives, etc.

RANDOLPH GRADEN.

Wayne Co., Mich., Jan. 26.

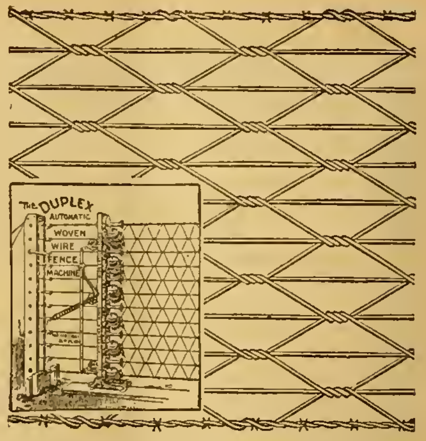
Preserving Comb Honey from Moth.

On reading in the Bee Journal the discussion on preserving comb honey from moth, I am compelled to differ from Mr. Green, as to moth not bothering comb honey except when pollen is present. Now this may be the case in a cold climate, but it will not do about here. The only safeguard here against the moth is ice and strong colonies of bees. Last summer I proved to my satisfaction that all honey taken from the hives has moth-eggs deposited on its surface, and if the desired heat is attained they will hatch and destroy the honey. I took off some nice section honey last July, and put some of it in a fly-proof can, and some I put in a refrigerator. (There was no pollen in any of it.) In a few days that in the can showed the fine dust of the moth, and I found very small worms in the sections; while that in the refrigerator had no worms or dust, yet the eggs were on the honey, as I changed places with the section, and the moths on the section, when placed in the cold air, ceast to make any more dust, but in a short time the section which was in the cold air first, and had no eggs hatcht, when placed in the can the eggs soon hatcht, and the moth in his glory was at work eating honey.

I found another lover of honey a few days ago—it is a light-green worm, about $\frac{3}{8}$ of an inch long. I will write about it later. HOWARD RISHER.

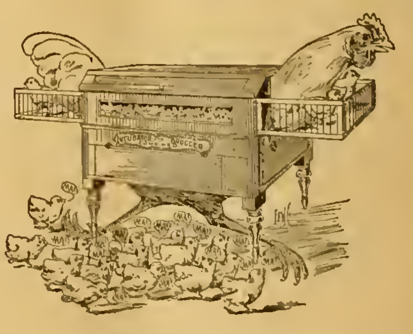
Ouachita Co., La., Jan. 20.

Our '97 Catalog
—OF—
Apiarian Supplies, Bees, Etc.
is yours for the asking.
It is full of information. ☞ Write for it.
I. J. STRINGHAM,
105 Park Place, NEW YORK, N. Y.
APIARY—Glen Cove, L. I.
Mention the American Bee Journal.



The fence here shown is made with the Duplex Automatic Woven Wire Fence Machine, which is made entirely of wood and malleable iron, and is so simple and easily operated that anyone who knows how to turn a grindstone can take it right into the field or any place and make 40 to 60 rods of fence a day, horse-high, bull-strong, pig, chicken and rabbit tight, at a cost for the wire of only 12 to 20 cents a rod. It can be made in a variety of styles or designs, using either plain or barb wire for the the top and bottom margin wires, and by using wire pickets, weaving them right into the fabric, ornamental designs can be made suitable not only for farm residences but also city and suburban residences. Messrs. Kitselman Bros., Ridgeville, Indiana, whose advertisement appears elsewhere in this paper, claim this Duplex Automatic Machine is the result of their 10 years' experience in the manufacture of woven wire fence machines, and is perfection itself. Send for their illustrated catalogue, which fully describes machine, and shows 24 different designs of fence the machine will make. Don't forget to mention that you saw their advertisement in the American Bee Journal.

The Reliable Hen.—The incubator business is taking on astounding proportions. This is true in the use of the machines, as well as in the manufacture of incubators. The latter business could not have attained its present dimensions had it not been for the success of the machines in actual practice all over the country. There has been too much success in the use of incubators and too much money made by this process to claim, at this late day, that the most improved incubators are anything but successful and profitable when correctly managed. We are led to these reflections by receiving the superb 168-page catalogue of the Reliable Incubator & Brooder Co., Quincy, Ill. Their machine is one of the most popular and most largely used. It is made in a careful and workmanlike manner of the very best materials. Too much cannot be said in favor of the Reliable regulator. The regulator is as near perfect as is possible to attain. One of the strong points in favor of this machine is that they are thoroughly tested in constant practice at the large poultry farms conducted by this concern. The methods followed at these and other successful poultry establishments, together with full directions concerning the management of incubators and the poultry business in general, are given in this 11th annual catalogue, which may be obtained by any one who will send 10 cents to the Reliable Incubator & Brooder Co., Quincy, Ill.; but if in writing them you state that you are a subscriber to the American Bee Journal you can get it free, and in that case need not inclose the dime.



HONEY and BEESWAX

MARKET QUOTATIONS.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

Chicago, Ill., Jan. 19.—Fancy white, 12@13c.; No. 1, 10@11c.; fancy amber, 8@10c.; No. 1, 7@8c.; fancy dark, 8c.; No. 1, 7c. Extracted, white, 5@7c.; amber, 5@6c.; dark, 4½c. Beeswax, 25@27c.
Very little activity in the market.

Albany, N. Y., Jan. 29.—Fancy white, 12-13c.; No. 1, 11-12c.; fancy dark, 7-8c.; No. 1, 6-7c.; Extracted, white, 5½-6c.; dark, 4-5c.
The honey market is very quiet and stock moving very slowly, even at reduced prices. White clover is not plentiful. Extracted is moving very slowly, but we hope for an improved demand soon.

Indianapolis, Ind., Dec. 31.—Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.
Demand is fair for grades quoted, but no demand for inferior grades.

Boaton, Mass., Dec. 31.—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Cleveland, Ohio, Dec. 31.—Fancy white, 14½@15c.; No. 1 white, 12½@13c. Extracted, white, 6@7c.; amber, 4½@5½c. Beeswax, 22@25c.
There is not very much honey in our market Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

New York, N. Y., Dec. 31.—Fancy white, 11@12c.; fair white, 9@10c.; buckwheat, 7@8c. Extracted, white clover and basswood, 5@5½c.; California, 6c.; Southern, 50c. per gallon. Beeswax in fair demand at 26@27c.
The market is quiet and inactive. Demand light and plenty of stock on the market.

Cincinnati, Ohio, Dec. 31.—Comb honey, best white, 10@14c. Extracted, 4@6c. Demand is slow; supply is fair.
Beeswax is in fair demand at 22@25c. for good to choice yellow.

San Francisco, Calif., Jan. 20.—White comb, 9-10c.; amber, 6-7c. Extracted, white, 5-5½c.; light amber, 4-4½c.; amber colored and candied, 3¾c.; dark tule, 2¾c.
Beeswax, fair to choice, 23-25c.

Kansas City, Mo., Jan. 20.—Fancy white comb, 14c.; No. 1 white, 13@14c.; fancy amber, 12-13c.; No. 1 amber, 11-12c.; fancy dark, 10-11c.; No. 1, 8-9c. Extracted, white, 6-6½c.; amber, 5 5½c.; dark, 4-4½c. Beeswax, 25c.

Philadelphia, Pa., Feb. 2.—Fancy white comb, 12-13c.; fancy amber, 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3½-4c. Beeswax, 25c.
Season is getting over for comb honey—very little demand. Extracted in good demand.

St. Lonia, Mo., Dec. 30.—Fancy white, 14c.; No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@10½c.; fancy dark, 9@9½c.; No. 1 dark, 7@8c. Extracted, white, in cans, 6@7c.; in barrels, 5@5½c.; amber, 4½@4¾c.; dark, 3½@4c. Beeswax, 26½@27c.

Baker stock of extracted honey, 4@5c; stock very scarce. Fair receipts of comb. Beeswax in good demand.

Detroit, Mich., Jan. 9.—Fancy white, 13-14c; No. 1, 12-13c.; fancy amber, 11-12c.; No. 1 amber, 10-11c.; fancy dark, 9-10c.; No. 1, 8-9c. Extracted, white, 5½-6c.; amber, 5c.; dark, 4-4½c. Beeswax, 25-26c.

Minneapolis, Minn., Dec. 31. — Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Buffalo, N. Y., Feb. 5.—Strictly fancy comb, 1-pound, moving quite well at 9 and 10 cents, while we hear of some grades a little less. No. 2 and other grades range from 7 to 5 cts. Quite liberal amounts can be sold if forced. Extracted, 3-5c. Better write before shipping.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN,

Kansas City, Mo.
C. C. CLEMOMS & Co., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
WILLIAMS BROS., 80 & 82 Broadway.

St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.
S. H. HALL & CO.

Milwaukee, Wis.
A. V. BISHOP & CO.

Boston, Mass.
E. E. BLAKE & CO., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. MCCULLOCH & CO., 380 Broadway.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central ave.

Convention Notices.

NEW YORK.—The Cortland County Bee-Keepers' Association will hold ith annual meeting in Good Templars' Hall, at Cortland, Saturday, Feb 13, 1897. H. S. HOWE, Sec.

IOWA.—The seventh annual meeting of the Eastern Iowa Bee-Keepers' Association will meet at Anamosa, Iowa, Feb. 10 and 11, 1897. A corps of experimenters have been doing special work in the apiary, and will report. Lay all cares aside, and come and enjoy the good things prepared for you.
Andrew, Iowa. F. M. MERRITT, Pres.

ILLINOIS.—The annual meeting of the Illinois State Bee-Keepers' Association will be held at the State House, in Springfield, Feb. 24 and 25, 1897. The State Farmers' Institute meets the same week—including all the State live stock associations—and our Executive Committee, along with them, arranged for this date, in order that the Legislature might be in good working condition. (We all know what for.) There will be an effort made this winter to get a Pure Food Bill past, and that means bee-keepers want a hand in it, to see that the adulteration of honey shall cease FOREVER AND EVER. Two years ago we succeeded in getting an Anti-Adulteration Bill through the Senate, but it failed in the House, only for want of push. Let bee-keepers throughout the State impress upon their Representatives the importance of such a bill, and come to our meeting to refresh their minds on the subject.

Railroad rates will be no greater than a fare and a third, which will be announced later. Our programs will be issued along with the other State Associations named above. JAS. A. STONE, Sec.
Bradfordton, Ill.

Doctor's Hints

By Dr. PEIRO,
100 State Street, *⁎* CHICAGO, ILL.

Honey for Coughs.

Old people's coughs are as distinct as that of children, and require remedies especially adapted to them. It is known by the constant tickling in the pit of the throat—just where the Adam's apple projects—and is caused by phlegm that accumulates there, which, in their weakened condition, they are unable to expectorate.

Take a fair-sized onion—a good strong one—and let it simmer in a quart of honey for several hours, after which strain and take a teaspoonful frequently. It eases the cough wonderfully, though it may not cure.

Honey for Stomach Cough.

All mothers know what a stomach cough is—caused by an irritation of that organ, frequently attended with indigestion. The child often "throws up" after coughing.

Dig down to the roots of a wild cherry tree, and peel off a handful of the bark, put it into a pint of water, and boil down to a teacupful. Put this tea into a quart of honey, and give a teaspoonful every hour or two. It is pleasant, and if the child should also have worms, which often happens, they are pretty apt to be disposed of, as they have no love for the wild-cherry flavor.

Pin-Worms.

Mrs. Bemis asks about these uncomfortable parasites. In appearance they much resemble grains of cooked rice. Sometimes a hundred or more infest the extreme lower bowels, causing intense itching, crowding each other out into the young one's trousers. Take a tablespoonful of the wild-cherry-bark tea, above mentioned, put it into a pint of water and inject it in the bowels, when the child is put to bed. Two or three such applications disposes of these pestiferous nuisances.

Honey on Frost-Bites.

If your ears, fingers or toes become frozen nothing will take the frost out of them sooner than if wrapt up in honey. The swelling is rapidly reduced, and no danger occurs.

Honey and Cream for Freckles.

Have you tried a mixture of honey and cream—half and half—for freckles? Well, it's a good thing. If on the hands, wear gloves on going to bed.

Beeswax Wanted for Cash
Or in Exchange for
Comb Foundation.
Highest Price Paid.
If you want your **Wax Workt into Foundation,** satisfactorily, promptly, and at the **lowest price,** send it to me.
☞ Write for Price-List and Samples.
GUS DITTMER,
AUGUSTA, WIS.

GAMES FREE & useful articles for only 2-6mo. subs. to PoultryKeeper at 25c. Every poultry raiser wants this leading poultry paper. Sample free. Address POULTRY KEEPER CO., Box 44 Parkesburg, Pa.
Mention the American Bee Journal.

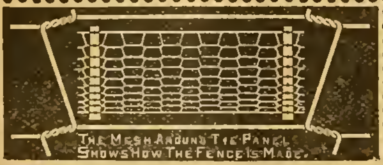
WANTED—ATTENTION !
SEE HERE, Friend Bee-Keeper, the best goods are none too good, and the lowest prices are none too low for the present times, so down go the prices for 1897 on **Full Line of Bee-Keepers' Supplies.**
I defy competition in quality and workmanship. **Working Wax** into Foundation when sent to me, a specialty. Write, without fail, for Catalog. My prices are worth looking at. Wax wanted at 26c cash, or 29c in trade, delivered. August Weiss, Hortonville, Wis.
6A8t *Mention the American Bee Journal.*

Bottom Prices

BRING US BIG TRADE.
GOOD GOODS KEEP IT.

If you want the best supplies that can be made at a little less cost than you can buy the same goods for elsewhere, write to us for low prices. **1897 Catalogue** soon ready—ask for it and a free copy of **The American Bee-Keeper** (36 pages).

Address,
THE W. T. FALCONER MFG. CO.,
JAMESTOWN, N. Y.


THE MESH AROUND THE PANEL SHOWS HOW THE FENCE IS MADE.

EXPANSION AND CONTRACTION is what destroys most wire fences. We have a way of completely overcoming this difficulty in the construction of the **KEYSTONE FENCE.** That's one reason why it outlasts all others. Full particulars in our book on **fence con-construction**—FREE.

KEYSTONE WOVEN WIRE FENCE CO.,
No. 3 Rush Street, **Peoria, Ill.**

Mention the American Bee Journal.

✣ MONEY SAVED IS MONEY GAINED. ✣

THE ROYAL UNION Life Insurance Company

DES MOINES, IOWA.

The Iowa Policy

Is one that definitely promises to keep an accurate account with you; credit your premiums and interest, charge the actual expense and mortuary cost, and hold the remaining funds subject to your order.

Agents Wanted.

JOHN B. KING, GENERAL AGENT,
Suite 513 First Nat'l Bank Bld'g,
20Atf **CHICAGO, ILL.**

PATENT WIRED COMB FOUNDATION

Has No Sag in Brood-Frames

Thin Flat-Bottom Foundation

Has No Fishbone in the Surplus Honey.

Being the cleanest is usually worked the quickest of any Foundation made

J. VAN DEUSEN & SONS,
Sole Manufacturers,
Sprout Brook Montgomery Co., N. Y.

Muth's HONEY-EXTRACTOR Square Glass Jars.

Root's Goods at Root's Prices.

BEE-KEEPERS' SUPPLIES in general, etc., etc
Send for our new catalog.
"**Practical Hints**" will be mailed for 10c. in stamps. Apply to—
Chas. F. Muth & Son, Cincinnati, Ohio.
Mention the American Bee Journal.

YOUR BEESWAX !

UNTIL FURTHER NOTICE, we will allow 28 cents per pound for Good Yellow Beeswax, delivered at our office—in exchange for Subscription to the BEE JOURNAL, for Books, or anything that we offer for sale in the BEE JOURNAL. **Or, 25 cts. cash.**

BEESWAX WANTED

—FOR—

Foundation Making.

Send For OUR CATALOGUE,
SAMPLES OF FOUNDATION,
ADVICE TO BEGINNERS, Etc.

Address,
CHAS. DADANT & SON,
HAMILTON, ILL.

WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

4¼ SECTIONS 4¼ SECTIONS

Our business is making Sections. We are located in the basswood belt of Wisconsin; there the material we use cannot be better. We have made the following prices:

No. 1 Snow-White.		No. 1 Cream.	
500	$1.25	500	$1.00
1000 at	2.50	1000 at	2.00
3000 at	2.25	3000 at	1.75
5000 at	2.00	5000 at	1.50

If larger quantities are wanted, write for prices.

Price-List of Sections, Foundations, Veils, Smokers, Zinc, Etc., Sent on application.

6A35t **MARSHFIELD MFG. CO., Marshfield, Wis.**

Cut Prices to Move Stock !!

There are a few items of desirable stock left of the goods secured of Thomas G. Newman when we took charge of his supply business here. In order to close these out and make room for fresh, new goods, we have decided to offer these at prices which will make them go.

The following is the list, which will be corrected as the stock is sold; if you see what you want here, order AT ONCE, or you may be to late:

V-Top Langstroth Frames, 75c per 100; 250 for $1.25; 500 for $2.
All-Wood Frames, pierced for wire, same price while they last.
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Townsend Section-Press, 50c. (old price, $1.)
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Desiring to make room for new goods, we offer from stock at this branch, No. 1 Dovetailed hives, 8-frame complete, with sections, foundation-starters, and nails, at $5.75 for 5; $10.50 for 10; $20.00 for 20; No. 1E, same without sections and starters, $4.75 for 5; $8.50 for 10; $16.00 for 20; 10-frame complete, 20 cts. each extra; 10-frame E, 15 cts. each extra. Other Hives in stock at a similar reduction.

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Contributed Articles

Growing Alsike and White Clover.

[For the benefit of those who wish to begin to raise Alsike clover for pasturage, hay, seed, and honey, we have concluded to republish the directions as given by Mr. Baldridge, of Kane Co., Ill. He has this to say about it:—EDITOR.]

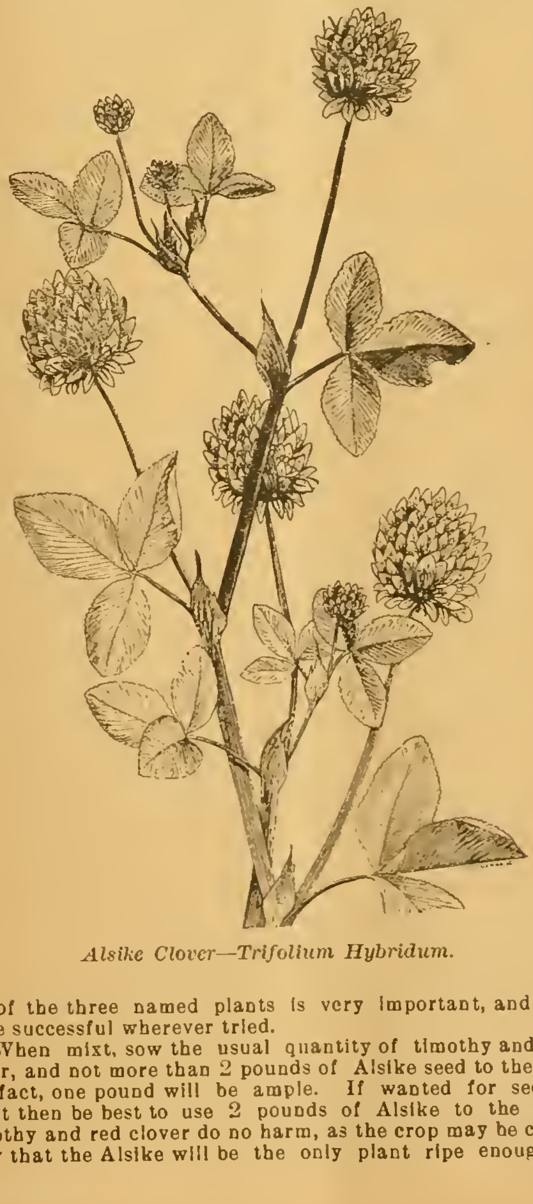
Alsike clover is a native of Sweden, where it grows wild—being both hardy and productive. It is commonly known by the name of Alsike, that being a parish in Sweden where this clover originated. It was brought into cultivation there about 100 years ago, was introduced into England in 1834, and soon after found its way into the German States and other parts of Europe, and was finally brought into the United States, through the Patent Office, in 1853.

It is a hybrid of the red and white clover. The stem and the branches are finer and less woody than the red, and when cut and cured for hay, it is perfectly free from fuzz or dust. It does not turn black, but remains the color of well-cured timothy. It has, as the engraving shows, numerous branches, and a multitude of blossoms which are very rich in honey. The blossoms at first are white, but soon change to a beautiful pink, and emit considerable fragrance. The leaves are oval, of a pale, green color, and may readily be distinguisht at any stage of their growth from the white or red clover, by the total absence of a pale, white blossom on the upper surface of each leaf.

It ripens, in the latitude of Chicago, in the latter part of July, but need not be cut until August, if the weather should be unfavorable. The crop of seed is always obtained from this cutting, in which respect it is unlike the common red. It is not advisable to cut this clover more than once each season, but it may be pastured moderately during the fall. When cut for seed, it may be thresht from the field with a common clover machine; but, if more convenient, it may be stackt and thresht during the fall or winter.

Handle the seed carefully, as it shells very easily, but this is a point in its favor, as the land thus becomes re-seeded every year, and so early, that if the autumn proves to be a wet one, nearly every grain will germinate, and a fine growth of new plants will be secured for the following year. The seed is very fine—being about the size and shape of white clover—a pound containing, it is said, about 600,000 grains, or three times as many as the common red. The seed-pods contain 1, 2, 3 and sometimes 4 grains, which explains why it is so prolific—a moderate yield being from 150 to 200 pounds of seed to the acre.

When sowed by itself, 4 pounds is plenty for an acre. It is much better to mix Alsike with timothy or the common red, or with both. When thus mixt, they are a help to each other. The Alsike, being a native of a cold climate, does not winter-kill, and, besides, it acts as a mulch in winter and spring to the common red, and keeps the latter from being destroyed by the heaving-out process. As the red clover shades the roots of the Alsike, which grows close to the surface, it protects the latter from the effects of drouth. The timothy and red clover being both upright growers, lift and keep up the Alsike from the ground, which is very desirable. The stem of the Alsike is too fine to support its many branches in an upright position, and hence is more inclined to "lodge" than the common red. For the reasons given, the combination of the three named plants is very important, and will prove successful wherever tried.



Alsike Clover—Trifolium Hybridum.

When mixt, sow the usual quantity of timothy and red clover, and not more than 2 pounds of Alsike seed to the acre—in fact, one pound will be ample. If wanted for seed, it might then be best to use 2 pounds of Alsike to the acre. Timothy and red clover do no harm, as the crop may be cut so early that the Alsike will be the only plant ripe enough to furnish seed. Timothy seed, being about the same size as the Alsike, cannot very well be separated from it; but with red clover, a fine sieve will quickly do the work.

Having often dug up specimen roots of both Alsike and the common red clover for comparison and exhibition, the difference in the size of the crowns and the quantity of roots seems to be decidedly in favor of the Alsike.

Having now grown Alsike on a variety of soils for the past 20 years with success, I know that these are facts, and not theories.

In 1886, Hon. M. Anderson, of Wisconsin, had 80 acres of Alsike—20 acres harvested gave 110 bushels of seed and 25 tons of good hay. M. M. BALDRIDGE.

[Mr. Orville Jones, of Ingham Co., Mich., sent us the following, dated Feb. 5, in which he also refers to white clover. —EDITOR.]

As it is getting near the time of year to sow Alsike clover seed, I will try to tell how I manage it.

It must be remembered, however, that Michigan is a great grass country, and that Alsike or white clover will not thrive on high, sandy soil. To get a good catch, we must first select a field or soil that is adapted to it, namely, a low, black soil, or a high, level piece of clay gives best results. This also applies to white clover. I have raised or grown these clovers for years for my bees, and of course for hay as well, and have never failed in getting the ground covered with plants. I usually sow white or Alsike clover in with oats in the spring, sowing about 2½ quarts of the latter, and two quarts of the former per acre. It should be placed in the drill, or you will have to go over the piece with a light harrow to cover all the seed.

Now, if you desire to sow with winter wheat, the best time to sow is in the latter part of March or the first of April (in this latitude), when the ground is frozen just enough to make it comby. Now throw on the seed, and when the ground thaws out the clover seed will be covered nicely, and waiting for warm weather to germinate it.

I wonder if Mr. Richter (page 46) is not doing some guessing, as well as Dr. Miller, when he says one-third of 40 pounds is seed enough for an acre. In sowing white or Alsike clover for honey alone, there is one thing to be remembered, and that is, in not getting the plants too thick, as the more they spread the more blossoms there will be, hence the longer the honey-flow.

Bees are wintering well here. ORVILLE JONES.

[For seed rates on both of these honey-clovers, see page 107 of this number of the Bee Journal.—EDITOR.]

Comb Honey vs. Extracted—Comparative Cost.

BY R. C. AIKIN.

In my former article on this topic (see page 17) I discust the question as to how much extracted could be produced more than comb. Now we consider the cost of the products to determine which is the more profitable.

The first outlay for bees and honey-house for either will be about the same. By consulting Root's price-list I find that he quotes comb honey and extracted honey hives just the same. Counting then the cost of bees, hives and house, there is no difference thus far. Let us count the cost of producing comb honey aside from yard work: 2,000 sections at $3.00—$6.00; full sheets of foundation for same— 20 pounds at 60 cents—$12.00; a hand to fold sections and put in foundation, one day, $2.00; 84 shipping-cases, ready nailed, at 20 cents each—$16.80; cleaning and casing the honey, two days at $2.00—$4.00. Total cost for sections, foundation, cases, and all labor clast as shop or inside work—$40.80.

Now let us consider the same part of cost of extracted. Combs are in the nature of a permanent investment so I will leave them to go into that part of the estimate. Uncapping and extracting 2,000 pounds, 2 men one day—$4.00; 17 boxes of 60 pound cans, at 75 cents per box—$12.75; 5 hours' labor running honey into cans, at 20 cents—$1.00. Total, $17.75.

Now the outside or yard work: It will require 84 supers to hold this amount of honey, either comb or extracted, unless full-depth bodies are used for extracting, when only about 40 extras would be needed. I will assume that the preparatory work—getting colonies ready to receive extras—is about equal. There cannot be much difference. The hives once ready it requires very little time to put on the extras, and here again the difference is so slight that we will call it even. This practically brings us to the taking off the honey.

There is a number of plans or methods of removing surplus. If it is done by the use of escapes, we may again balance labor, for there can be but little difference. If brushing is to be practiced, the difference would be a little in favor of comb. I consider either of these methods as too slow, too expensive, and altogether unnecessary for an apiarist. A farmer with a few colonies to supply his own table may well make use of the escape; but the apiarist—though apiculture be not his sole occupation—should by all means have a honey-room.

If he does not have such a room separate and into which he can carry bees and honey and have proper window-escapes, he should have a very cheap bit of room in the yard, and absolutely bee-proof, and window-escapes. I consider this the way, and have so practiced in a wholesale way. To remove the honey—either comb or extracted—I first smoke down the bees by shooting smoke in and above and keep them going like a flock of sheep, and quickly remove the super, and if a grass yard, swipe the bottom on the grass; but if no grass I use a *great, big* grass-brush and swipe this over the bottom. I then carry the super to the house and let the bees pass out through the window-escape.

Since the foregoing is the better one I shall make my calculations upon that method. To remove the surplus in this manner we can again balance the labor, for it means about the same in either case, though if *deep* extracting-supers are used more bees will be carried to the house than with sections, and the more uncapt honey, the more bees will remain with it. This covers the yard work; and, all things considered, we may say the difference in labor is scarcely worth noting.

The question of swarming, however, comes up. Many will say that when extracted honey is produced, swarming is but little trouble. I know that it is possible to get fair results and very little swarming when working for extracted; but if the methods to discourage swarming are pusht far enough to make it practical, the additional expense to make it a success for comb, or to stay with them to care for swarms, is not very great. However, it does take some more care, skill and expense in the yard-work to produce comb; but I propose to balance this against the fact that the extracting must be done at once, while the sections once in the house they can wait till the rush is over to receive further attention. I can get into the house either comb or extracted honey with about the same time and labor; but the extracted must be thrown out while warm, and while extracting we might be doing other yard work. Considering, then, that comb necessitates some more labor because of an increast tendency to swarming, and that the extracted demands care (extracting) immediately after being removed from the hive while comb will wait for a slack time for cleaning, I must again balance the one against the other.

Now let us consider the cost of marketing. We left the comb honey in shipping-cases and the extracted in 60-pound cans. The comb is ready for either retail or wholesale—the extracted ready only for wholesale. Comb honey usually goes at first-class freight, extracted at second or third class. If comb goes at $1.00, extracted will go at about 75 cents, or ¼ cent more on the comb.

We took as a basis one ton of honey. We are not endeavoring to get at the *actual* cost, but the *comparative*. Where we could balance one thing against another—or cancel common factors—we have done so. We have figured the ton of comb, aside from common factors, at $40.80, and extracted at $17.75—a difference of about 1¼ cents per pound more than the comb would cost. If you ship a distance costing $1.00 per 100 pounds, there would be about ¼ cent more. Let us then say a difference of 1½ cents.

There is yet in the matter some uncounted cost. The production of extracted requires an investment in fixtures or plant that is not in a comb-honey plant. For comb honey we need a section-folder—Root lists the Hubbard at $2.50; also a foundation fastener at $1.00—I prefer a combined machine worth about $3.00. These machines of various makes cost all the way up to about $5.00. Root also lists uncapping-knives at 70 cents, and uncapping-cans at $7.00. Now, I am going to give the extracted product an advantage here, and "factor out" these items. This covers the comb-honey outfit, but there is needed for extracting, an extractor, extracting-combs, strainers, buckets, etc. Extractors are listed at from $7.00 to $20—we will say $10 for an extractor; large settling-tank (cheap) at $5.00; buckets, strainers, etc., $3.00—total, $18.

Now for extracting-combs: We have counted to hold the 2,000 pounds in sections, 84 twenty-four section supers, so we will count 42 full-depth extracting-supers and 7 frames each, or 294 frames. It will cost about 8 to 10 cents per frame for foundation. According to Root's list they wire and fill frames with thin foundation at $10 per hundred. Whether foundation or natural combs are used they ought to be worth that, so we will put them in at that price. At 7 frames we have 294, but we will call it 300 at 10 cents each—$30. Add to this the cans, extractors and such, $18, and we have $48 to go into a permanent investment, and that is not one bit more than half what is really needed. It will not do to figure in these things on the one ton of honey—the interest, wear and tear and cost of maintaining them should come in, though the proportion of per cent. would diminish or increase as the crop was large or small. I am going to drop out this item, too, and see what we will realize on our ton of honey according to the foregoing figures.

I find in this journal the following quotations for Chicago, at the time of this writing: "White comb, 12 to 13 cents"—say 12½ cents—$250 per ton. "White extracted, 5 to 7 cents," or $140 per ton at the top price. Referring back, you will find I have estimated the cost of comb to be 1½ cents more per pound than extracted, while in the markets we can get 5½ cents more per pound—a profit of 4 cents more for comb than extracted.

We will suppose that we can produce 2 pounds of extracted to 1 of comb—2 tons to one. If one ton costs $17.75, 2 tons would cost $35.50, and bring according to the figures above, $280. Now deduct from this the freight on the extra ton, and the commission of 5 or 10 per cent., and there is no more money for the 2 tons of extracted than for the one ton of comb. The commission alone on the extra ton would be $14, leaving $16 to pay the freight, which, at 75 cents, would be $15.

Another thing to consider is retail packages for extracted. At present there is *really no market for extracted honey in retail packages*. I mean, of course, the wholesale market. You cannot find any quotations on extracted except in barrels or cans. Nearly all extracted honey candies more or less, and must be put into the retail package as soon as extracted, or else there must be an addition to your plant of a liquifying arrangement. Suppose, then, you put it into retail packages as you extract. The cheapest package is tin pails. These pails do not seal, and the honey cannot be shipt unless candied *solid*. The cheapest pail will cost ¼ cent per pound more than the 5-gallon can.

Glass and sealing packages will cost from about 3 to 5 cents per pound, and there is no *establisht* market for them. They are not *regular*, and may be you can sell and maybe not. Dealers do not want to risk such. If you live near town, and sell direct to customers, an unsealed package will do; but if it must pass through several hands—hands unused to honey—it must be in sealed packages. Sealed packages soon run the cost away above that of comb. Comb honey gets its case at about 1 cent per pound, or less, but you cannot put up all pound packages of extracted for less than 3 to 5 cents, sealed against leakage.

Now do not forget that I have been figuring *comparative* cost, not actual cost of producing the two articles. Actual cost is an ever-varying thing. We can figure very close on the cost outside of labor. True, it is not so much labor to produce one ton as to produce 10 tons; but very often there is a lot of work done in anticipation, that we must do. Aside, however, from this we can figure the cost so that we can say with a reasonable accuracy that any given yield, and at given prices, will give us so much for our labor. The *great* cost of honey is the labor, and extracted takes more of it, and piled up more, than does comb.

There are those who think there is little room for improvement in apiculture, but I am not one of them. We must improve methods of producing and marketing extracted honey or quit it. There is abundant room, I am sure, in one line, and that is in supplying home markets and supplanting the glucose and cheap syrup that is now on the market. Why is it that nearly everybody buys maple syrup at $1.25 to to $1.50 per gallon when honey brings but $1.00 per gallon, and less? The reason is that our methods are so *crude* and our product so *scarce* that we just cannot get it to the consumer.

Page Co., Iowa.

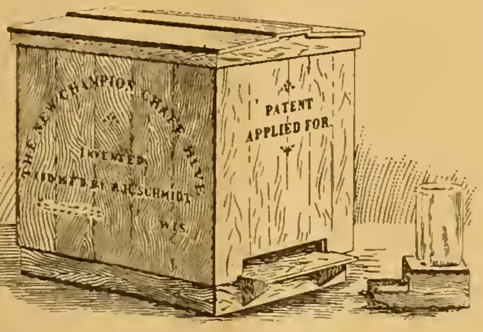


Fig. 1.

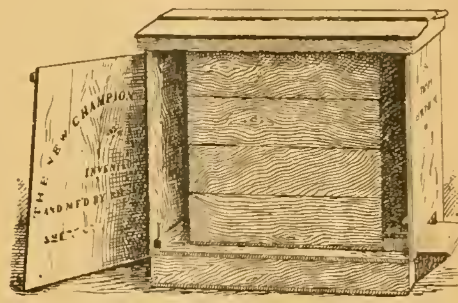


Fig. 2.

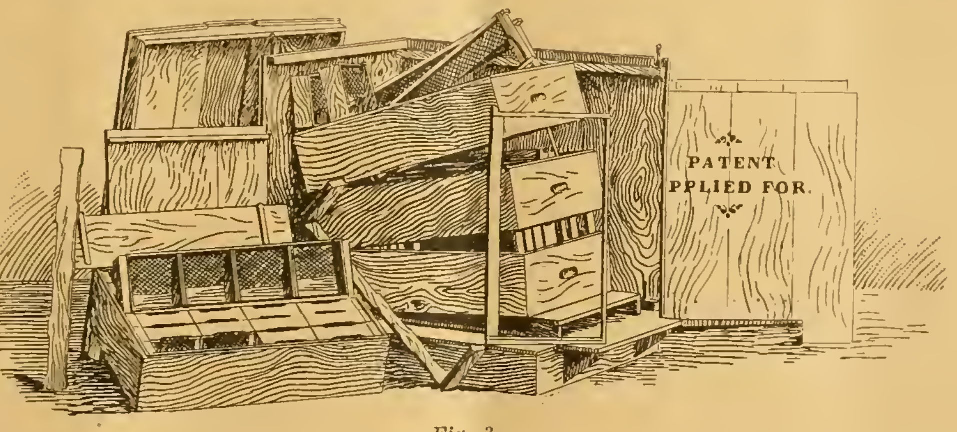


Fig. 3.

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The "New Champion" Chaff Hive.

Figure 1 represents the New Champion double-walled chaff hive, made by R. H. Schmidt & Co., of Wisconsin. It can be used for comb honey and extracting at the same time if desired. It has a 3½-inch air-space that may be filled in winter with chaff, sawdust, or other packing material. This can be removed in the spring and the room used as an air-space during the summer days, by simply lifting out one or two sides (see Fig. 2), which are fastened by steel-wire pins, and can be replaced easily and quickly. The hive bottom is double, with a 2-inch chaff or sawdust filling.

The hive is made of ⅜-inch white pine lumber, planed on both sides and shiplapt. The outside boads are nailed up and down, on hardwood cleats, and the roof is tinned, making the hive perfectly water-proof. This should make it a very durable hive.

Figure 3 shows the various parts of the hive, which explain themselves. An entrance feeder is also shown in Fig. 1.

Amalgamation: Combining Against Aulteration

BY MRS. L. C. AXTELL.

EDITOR YORK:—We have been a member of the National Bee-Keepsrs' Union for several years, but guess we did not pay up for last year, and do not know if we have a right to vote on the amalgamation of the two societies or not. If we can vote, can you send in our ballot?

There has been a great deal written for and against amalgamation, and probably a great many readers have been like us—have not read it all, and yet want a strong Union, and would vote for it if they knew just whom to vote for, and where to send their money.

We ought to combine against adulteration and dishonest commission-men. We ought to compel those who mix up honey and glucose, to label it glucose and honey. We have had very nice looking packages of syrup in glass tumblers, with a small piece of comb honey, placed in our stores and sold as California honey, at a low price, and that brings our honey down to a like price, or it goes unsold until the adulterated article is gone. That which was brought here a year ago last summer was called "California sage honey," put up in Chicago, by so and so, and one of our store-keepers, who was selling it, was loud in recommending it, and said that sage honey was the best honey in the world, and so it went off at first very fast; but some said they did not want it the second time, tho it tasted very well. It tasted quite pleasant to me, but could not have been honey, or it would not have been sold so low. Now we can't prevent such articles of food being made and sold, but we ought to prevent it being sold as pure honey, when there is but a trifle of honey in it.

We ought also to have some one who would look after our honey when it is sent to commission-men to be sold. There are so many ways that they can get ahead of us, and as we know it will do no good to say anything back to them, we must just keep still and take just what they are willing to give us.

We ought to push our sales of honey at home more than we do. If it has to go cheap, let our neighbors have it cheap. The honey sold at home should be graded just as much as that sent to the cities, and let each one have his choice of price. Many will buy if they can get a cheap honey, and we might as well sell it cheap at home as to let the commission-men do so for us. Many times they are not to blame, for when so much honey is sent to them, they must get rid of it somehow.

We had about 3,800 pounds of honey from our 125 colonies in 1896, and increast to 150 colonies.

Warren Co., Ill.

[Mrs. Axtell's letter reacht as Feb. 5—four days after the polls closed. No dues have been called for now for two years, except from new members when joining. This is because enough money is, and has been, in the treasury to meet the expenses incurred.

We presume that to all who were members in 1896 were mailed the General Manager's 12th Annual Report. We received ours Jan. 11, 1897. Others should have had theirs about the same time, if all were mailed together.

Upon referring to the list of members, we do not find the name of Axtell among them. That would account for the non-receipt of the Report and ballot.—EDITOR.]

Preparing and Moving Bees in March.

BY C. P. DADANT.

QUES.—"I must move on the first of March. Will my bees suffer by being packt and transported at that time? and would I better cover them up again?—W. S."

ANS.—It is difficult to answer such a question by yes or so. The safety of transporting bees at that time depends considerably upon their condition. After a winter like the present, when they have had a chance to take a flight every few days, there is much less danger of any loss in transporting them, as early as March; for they are usually very strong in numbers, and have been breeding quite freely, often as early as January. The hatching of young bees early in the year is the best security against spring dwindling.

On the other hand, when the colony has been weakened by repeated losses, due to extremes of cold, or to the death of a part of the cluster, from its being on the outside combs, away from the main body, during a protracted cold spell, there is but little tendency to brood-rearing and the colony is unable to recuperate its losses, be they ever so small, until the warm days enable them to create a sufficient heat to encourage the queen to lay. Thus, after a long, cold winter, if the bees have barely commenced to breed, there is a great deal of danger in the transporting of them early, as the loss of a few bees that may occur will weaken the colony that much more. If the breeding is not sufficient to keep up the force, there are continuous losses of bees in cool, windy days, especially when they feel the necessity of going out after pollen or water.

Some of the most noted naturalists tell us that bees do not need water for their brood; that they can rear plenty of young bees without a drop of water; but the practical apiarist who learns bee-culture by the experience of daily observation, knows that the bees do use a great deal of water. He has observed them, in early springs, around streams, pumping up the moisture from between the grains of sand on the river's edge, or the dew from the moist leaves; he has seen them venture out in cool days, evidently with no other purpose than that of getting water, and he knows that, altho they may be able to breed some without water when honey is fresh and thin, they surely need a great deal of it to prepare the food for the larvæ when the honey is thick and the pollen dry, as it must be after winter.

We would, therefore, say: After an open winter—one in which the bees have had a flight once every two or three weeks, or oftener—if they have sustained but little loss and have plenty of brood, we would not hesitate to transport them in the beginning of March, and would think it hardly necessary to pack them up again, except perhaps the weak colonies, of which there are always a few in a good-sized apiary; but if the winter has been hard, if the breeding has barely begun, or if there have been heavy losses, we would use a great deal of care, and would surely give them a new packing when placed on their new stands.

There is one case in which we would entirely abstain from transporting them on March first, and that is, if the weather has been so that they have not had a flight for a month or more previous to moving them, and if the weather is still so rude as to prevent their flight shortly after they have been removed. The moving would disturb them and would cause them to scatter about the hive. Probably a number of bees in each hive would be chilled. Perhaps, also, the extra exertion would induce them to consume more than usual, and their intestines, already loaded with feces, would become so much more embarrast, and the result, unless a warm day came quickly, would very probably be disastrous.

In any case, it is well to move them shortly after they have had one good flight. Rather move them a little earlier, after a good flight, than wait and disturb them during a two weeks' or three weeks' confinement, such as we sometimes see in March, especially in late winters.

One thing above all, is very important: Be sure that they are compelled, on their first flight after the change, to notice their change of residence. If they cannot fly out the very day on which they are moved, they will be quite likely, when the excitement is over, to issue out of the hive, as if nothing had happened—that is, without looking behind. A bee, in its first two or three flights out of its hive, takes a close observation of the surroundings and notices the exact spot of its home so closely that if you move the hive afterwards, if it were but one foot in any direction, it will have some difficulty in recognizing the entrance.

After the first two or three flights, the bee never looks back, but darts out straight. So if you move them and they do not have a chance to fly for two or three days, or even till the next day, the excitement being over, they will have probably forgotten all about it, and will not even suspect that the location has been changed. The bees will issue as usual in a straight line, and will not notice the change till they are a few feet away; perhaps they will not think of looking back before they have gone a hundred feet or more. Then, if there are a number of hives close together, there will be some confusion, and many bees will be lost. There is a very simple way to prevent this. Place something in front of the hives, so they may know, before they take wing, that there is a change in the outside conditions. We use a slanting board in front of the entrance, around which they have to fly. This calls their attention to the change at once. Another way is to keep the hives closed till the middle of a warm day; but this method will irritate them more than the first.

CONVENTION PROCEEDINGS

Report of the Michigan State Bee-Keepers' Convention, Held at Mt. Pleasant.

BY W. Z. HUTCHINSON.

[Continued from page 86.]

The Secretary then read a paper from Hon. R. L. Taylor, of Lapeer Co., entitled,

REQUIREMENTS OF THE HIVE.

I have found myself willing to write upon the well-worn topic of the bee-hive, because there is perhaps no point relating to bee-keeping about which I am askt so many questions as this.

It is well to understand that the bees themselves are not much concerned about the characteristics of their hive—they will store as much honey, other things being equal, in a shoe-box or a nail-keg as in a hive of the latest pattern or patent. So the form of the hive is a mere question of convenience to the apiarist. He may shape it so as best to secure the object he has in view. But bee-keepers have many objects, so hives are wanted, 1st, for catching moths; 2nd, for pleasure; 3rd, for preventing swarming; 4th, for producing bees; 5th, for wintering bees; 6th, for rearing queens; 7th, for producing extracted honey; 8th, for producing comb honey.

Fortunately, a different kind of hive is not required for each of these objects; if a hive is to be selected for one object, an eye may be had also to points calculated to secure other objects that are subsidiary and yet necessary to the full attainment of the main one; thus, whatever the main object, the hive must be such that it will prove as little fatal to the bees in winter time as possible. Still, no particular hive is likely to prove the best for all purposes.

The numbers of those who delight in hives simply on account of their moth-catching qualities are of course small, but as there are some whose chief pleasure and occupation in life is to tame mosquitoes and train fleas to perform tricks, we are not to be surprised that there are some whose chief consideration it is to trap wax-moths. It might be well if all of that type of bee-keepers were confined to moth-trapping.

To be clast with these are those who keep bees and select hives for pleasure only; not that they are equally eccentric, but because the prescribing of hives for each of these two classes is alike outside the lines of apiculture proper.

Intermediate between these two classes and those that have an eye strictly to financial returns are those who are intensely interested in non-swarming, producing bees, and in wintering bees. I call these intermediate because a part of each class is so passionately absorbed in inventing or otherwise securing or in testing a hive specifically adapted to the attainment of one of these ends that all interest in the primary objects of bee-culture are so lost that they fade out of view—(who has not met those who are in ecstacies over their large or frequent swarms, yet who either forget to put on the surplus boxes or to take them off?)—while the other part make these objects more or less subsidiary to the attainment of the proper rewards of bee-keeping. The first part of these classes must be relegated to a place with those who are pursuing pleasure and moths; with the hope, nevertheless, that by chance some device may be hit upon by them sometime that will be found worthy to be incorporated into the mass of real value to apiculture, while the latter part will receive such brief attention in connection with hives for honey-production as the limits of this paper will permit.

While queen-rearing is a legitimate department of bee-keeping, yet the characteristics of the hive best adapted to that branch is only of special interest to so few that I would not be warranted in taking time on the topic, even if I could hope to make any valuable suggestion touching it. The hive in use for other purposes will generally be found sufficiently serviceable for this.

This brings me to the important point of this subject—the hive best adapted to the production of honey. I confine myself to a discussion of the brood-chamber, and that chiefly in relation to general principles.

The successful production of honey is the one overshadowing object of apiculture, and to this in my estimation all others ought to be made unhesitatingly to bow.

For my use, at least, there are certain qualities which a hive for that purpose must not possess:

1st. It must not be expensive. Fifteen or 20 cents should purchase lumber enough of sufficiently good quality for body, cover, and bottom. Lumber called "shipping culls," of white pine, is good enough for the body, and a grade or two better will do for covers and bottoms, if the best of it is selected for covers. The apiarist must not be seduced by one or two good crops into failure in point of economy.

2nd. It must not be cumbersome. Its bulk and weight should be as small as may be, loose parts and projections should be avoided except where that is impossible. A hive that cannot be handled easily by one man when it contains a colony of bees with stores enough for winter is, as a rule, to be shunned. There may be an exception where the hive is seldom or never to be moved summer or winter. Even the risk of the displacements of the combs would, I think, better be obviated by fixed frames.

3rd. It must not be complicated. Slides, drawers and such like traps never work well inside of a box occupied by bees, and if they would, they could hardly accomplish anything which may not be more easily attained by simplicity.

Besides these negative points there are, in my view, some positive qualities to be sought for in any hive at all well calculated for an apiary to be conducted for the highest net profit. The first and most important of these is that the hive be fitted to conveniently repress the production of bees that can only detract from the net income. No doubt there are localities where, on account of the continuous character of the honey-flow, or from the fact that the late crop is abundant and equally valuable, or nearly so, pound for pound, with that of the early crop, this matter may not require consideration, but in localities like central Michigan, where the June and early July honey from white clover and basswood is nearly twice as valuable pound for pound as that gathered in the fall; and where the fall crop is generally scant or entirely wanting, and in any case a period of 30 or 40 days of entire dearth between basswood and fall flowers, it is of the first importance.

I have heretofore attempted to show, and have, at least, about convinced myself that it costs two pounds of honey to rear one pound of brood, and that as a Langstroth frame is capable of containing two pounds of brood, therefore, I hold that one such frame of brood costs four pounds of honey. Moreover, it needs no argument to show that five such frames will contain sufficient brood to keep the colony up to the highest strength desirable in this locality for fall and winter purposes.

Suppose, now, the clover and basswood season here, any given year, July 15, it is evident, since it requires 35 days from the laying of the egg to mature a field-worker, that all eggs laid in any colony in excess of the number required to keep comb to the extent of five Langstroth frames supplied with brood can produce no bees that will prove of any practical utility. During these 35 days—the height of the season—average queens, if allowed room, will keep eight frames filled with brood, and as it is for nearly 1¾ generations, the total excess over the required five frames would amount to about five times during the 35 days at an expense of 20 pounds of honey, or in an apiary of 100 colonies a matter of $200 to $250.

If space permitted it would be easy to mention one or two other items that would make the amount considerably more. It would be comparatively easy to select a hive that would secure the repression, if it were permissible at no time of the year to allow more than five Langstroth frames of brood, but it is just as imperative that every cell possible be used previous to June 10, as that unnecessary brood should be prevented after that date. The selection of a hive must be made, therefore, first, with reference to the earlier period.

In the production of extracted honey the size of the hive during this period would not be very material, as honey in combs at the side of the brood-nest would be about as valuable as that in combs above it, but for the production of comb honey it should be of such size as to give as nearly as possible merely room for the brood, and thus secure the storing of the honey in the sections where it will be of double value. In this locality only a small proportion of colonies would occupy more than eight Langstroth frames with brood prior to June 10, so I deem a hive of greater capacity than that objectionable for the production of comb honey. If the field was lightly stockt with bees, so that as large an increase as possible were desirable for the gathering of the crop, each queen could be given abundant room for the display of her powers by exchanging combs between the stronger and weaker colonies.

This line of thought would seem to fix our choice of hives on the eight-frame Langstroth, but it has points which fail to give satisfaction when it is proposed to put contraction in force, about June 10. Still this contraction, which, in practice, is largely confined to swarms, can be accomplisht with this hive by removing three of the frames and filling the vacant space with dummies. This accomplishes the desired contraction, but it also contracts the upper surface of the brood-nest. This is not desirable, since, for the best work in the sections, it is necessary that the heat and the aroma of the brood-nest should ascend freely to all parts of the section-case.

At this point I am sometimes moved to pray those who are so sure they can breed the swarming instinct out of the bees, to breed out also the disposition to build combs perpendicularly, and bring them to build their combs horizontally. With this accomplisht we would have the perfection hive indeed—simply frames piled horizontally on the top of one another with the ability to make its capacity suit the colony or the apiarist by simply removing or adding frames without in any way affecting the desirable qualities of the hive. If this should fail, will some one give us a hive composed of sections about three inches in depth which may readily be placed one above another without bee-spaces between them and yet without crushing bees. I want them so they could be easily furnisht with foundation for the combs, but I would not care to have the combs movable. In the absence of this, we have as the nearest approach to it the Heddon hive with sections approaching six inches in depth. The sections have bee-spaces, but the spaces are not undesirable when the sections are of that depth. As each section of this hive has the capacity of five Langstroth frames, it answers excellently for the purposes of contraction, but for most colonies previous to the period of contraction, one section is too small, and two are too large to satisfy me fully. I am sometimes inclined to think that if a *portion* of the sections were of the depth of about three inches they could be combined with the others in a more satisfactory way.

Without entering into further details I have sufficiently indicated the characteristics which I think the hive to be adopted should possess, so let it suffice to say that either of the hives indicated will answer equally well, with any other, all the other legitimate ends of the apiarist.

R. L. TAYLOR.

Mr. Hutchinson—Complete combs could be used horizontally for making a brood-nest. Brood can be reared and honey stored in a comb placed in a horizontal position. I once laid a comb of honey over a colony destitute of stores. It was overlookt for some time, and when I finally found it it was a comb of brood.

Mr. Doane—I have used the wide, deep top-bars. They help to prevent brace and burr combs, but not to any great extent. They help mostly by preserving the proper bee-spaces. With the old style of top-bars, they sagged, and then the bees had to make ladders in order to get into the supers. If the spaces are right no ladders are needed.

Mr. Fordyce—I have used the Hoffman frames, and I don't like them. They are stuck together too solid with propolis. A hatchet is needed to get them apart when once they are well stuck together.

Mr. Bingham—Any practical bee-keeper ought to know that of all the traps made to catch bee-glue, the Hoffman frame beats them all. With black bees, there was not so much need for closed-end frames, but the Italians are so given to crowding in all of the honey possible near the brood-nest, that much of it is crowded in behind the end-bars. When I bought Italian queens, and paid $10 apiece for them, I was not long in learning that something must be done if I didn't want several pounds of honey in each hive tucked away behind the end-bars instead of in the sections. For this reason I made closed-end frames.

(Concluded next week.)

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Material for Cushions and Quilts.

I have several barrels of cork-dust which I am going to use in cushions and double-walled hives. What would you prefer for making cushions and quilts—duck, burlap, or something else, not considering expense? Considering expense, what would you use? W.

ANSWER.—Not considering expense, I should hesitate between duck, burlap and heavy sheeting or cotton cloth. Duck would last longer than sheeting, but being stiffer it would not fit down so nicely over frames. Having regard to expense, I would take burlap or sheeting, whichever cost the less, and that would generally be burlap.

Bees Eaten Into by Mice.

I send you by this mail a few dead bees. You will notice there is a small hole on their backs, between their wings. Three of my colonies are dying very fast. One of them has lost nearly a quart of bees since putting them into the cellar. What is the matter with them? A. C. M., Canada.

ANSWER.—Yes, each bee has a hole scoopt out of its back big enough to bury its head in. I've had thousands affected the same way, and so have many others, but some may not have been so observant as you in noticing it. Probably you will find some, however, that are whole. Select a few of these from near the entrance of the hive, and put half of them in one saucer and half in another, setting the saucers somewhere near the hives. Put a tumbler over the bees in one saucer and leave the others uncovered. In perhaps 24 hours you will find the exposed bees with a hole in the back of each, while those that are covered will be found unchanged. The tumbler prevented the mice from getting at the one lot, and they made a neat job scooping out the backs of the other lot.

The bees first die, then the mice eat into them. The cause of death may be because the air in the cellar is foul and needs ventilation, or possibly the hives are closed up too tight. Possibly also the colonies may be very strong with a large number of old bees, and these may be dying off from old age. In that case there would naturally be a good many dead bees.

Moving Bees a Mile or Less.

What is the best method of moving bees from the stands which they occupied last summer and this winter, to another place one mile or one-half mile away? My difficulty results in the loss of bees that return to the old place.

COLORADO.

ANSWER.—You may find that your difficulty will cease if the bees are taken at the right time. There are expedients that may be used with more or less success when one is obliged to move bees a short distance in the working season, but they are not needed at a time when bees have not been in the habit of flying. The common belief is that it is not safe to move bees less than perhaps two miles for fear the workers may return to the old stand on their first flight to the fields. The common belief is correct, and it isn't a very hard thing to imagine a case in which it would not be a safe thing to move a colony six miles or even more. Suppose a region where there is a grove of linden trees, the only pasturage at the time of their blooming within reach, and these trees are three or four miles away. At a time when the bees are busily working on these trees, suppose the bees are moved, (and it doesn't matter if this be at dead of night) to a point three miles beyond the grove, that is six or seven miles from their old home. A worker, starting out from its new home, strikes upon the same old place to which it has been accustomed in the grove, and loads up. What more natural than for it to return by the familiar route to its old home from which it has been moved?

But bees behave quite differently after having been shut up through the winter. Watch the bees sporting about the hive when they take a cleansing flight early in the spring, and you'll see them flying with their heads toward the hive, just the same as young bees mark the location for the first time. They probably do not fly very far from the hive, and the next time the weather permits a flight they will go through the same performance again. Now if they were moved to a new location just before taking one of these flights, it would be natural to expect them to mark the new location and cling to it, even if it be only a short distance away. So the thing for you to do is to move your bees in the winter or early spring at any time when they have been confined to the hive for some days. There are exceptions to all rules, and I've seen bees taken out of the cellar after the winter's confinement and put on a new stand fly back to the old stand on first coming out. But if no hive was there for them to enter, they would return to their own hive. So if your bees were moved a short distance there might be a case in which some bees would go back to the old place, but if moved half a mile before there is anything for them to work on, and when they have not flown for a week or more, hardly would I expect any to go back. Of course, in any case of moving, there can be no harm in taking the precaution to put a board up before the entrance to make the bees take note of surroundings on first flying out.

Getting Partly-Filled Sections Cleaned Up for Next Season's Use.

In going over last year's stock I find I have quite a number of sections in which the starters have been half drawn out and a small amount of honey stored in them, but not sealed over. The honey was thin and has soured. Will the bees clean them out before storing this year's crop, if put on the hive? and what effect will it have upon the bees? It would not do to market sections with a spot of sour honey in them. I do not like to throw the sections and drawn comb away, but would rather do so than injure the bees. H. J. L.

Answer.—It would not be safe to let the bees have sour honey till the weather gets warm enough so they will fly every day, but after that time you need have no fear so far as the health of the bees is concerned. The only question is with regard to the combs being cleaned out fit to use. It would hardly do to risk it by simply putting the sections on early. Indeed it would not be advisable to put them on the hive at all till time for the bees to commence filling them. Put the sections out somewhere away from the hive so the bees will feel it's public plunder, and they will much more surely clean out all that's liquid. Whether they will clean out all the granules is a question. It's a good deal safer to have the sections cleaned out in the fall before any granulation takes place. And this must be not on the hive but away from it. If you risk getting them cleaned out in the spring, be sure to set them out early enough so the bees will have plenty of time to work at them before there's any thought of the harvest.

Fastening Foundation in Brood-Frames—Bi-sulphide of Carbon.

1. What is the best way for a novice to fasten foundation in brood-frames?

2. Is patent wired comb foundation better and easier to handle than other kinds?

3. I notice on page 23, that Mr. Chapman explains the use of bi-sulphide of carbon for killing worms, gophers, mice, etc. I suppose it would be perfectly safe if kept away from fire. How long would he leave the saturated rags in a granary to kill mice? Could they be left there without doing any harm? In killing gophers, would it not be best to place the rag in the hole? W. B.

Answers—1. A safe and easy way is to have a saw-kerf in the under side of the top-bar into which the foundation will easily go. For tolerably heavy brood foundation the kerf should be 5/32 of an inch wide. For lighter foundation the kerf should be narrower, and wider for heavier foundation. The kerf should be ¼ inch deep if the top-bar is thick enough to allow it. Turn the frame upside down, slip the foundation into the saw-kerf, then drop a few drops of melted wax along the top-bar to fasten the foundation. You can perhaps do this most easily by making a wax candle. Take a string not as heavy as common wrapping-twine, pack around it scraps of foundation or other beeswax till it is 1½ or 2 inches thick. No matter about its looking pretty. Light your candle, and when fairly started hold it to one side and let the drops of melted wax fall where you want them. The frame should have been previously wired, and perhaps the best way is to have four horizontal wires, ordering the frames to be pierced for wiring when you order your frames. The foundation may come close to the sides, that is, close to the end-bars, but must not come clear to the bottom or it will sag. Leave a space of about ⅜ of an inch at the bottom. To fasten the wire, in the foundation hold the frame over a lighted lamp or gasoline stove, wire side down. Move the frame along so the wire throughout its whole length will be held over the lamp and melt its way into the foundation. Aid this by gently pressing upon the foundation as it passes over the lamp. You will soon see how fast you should move. If you go too fast the wire will not be heated enough and will not sink into the foundation. If you move too slowly the foundation will melt. You will find that the wire heats rapidly and the wax slowly, so the hot wire will melt its way into the wax before the adjoining wax has time to melt, and if you make a good job it will look as if the wire had been made in the foundation.

2. As the wire is already in the foundation, of course there ought to be that much less trouble.

3. If no fire comes near the fumes of course there is no danger of explosion, and probably the fumes will disappear in the course of 24 hours. If the saturated rags should be left permanently in a granary no harm would result, but if the place be too open the fumes would not produce the full effect. For gophers it might be the best to pour the sulphide in the holes and promptly stop the holes. This advice is open to correction by any one who has had more experience. I've had none.

Changing the Flavor of Comb Honey.

Is it impossible to change the flavor of comb-honey? E. B.

Answer.—Yes, you can make a decided difference in the flavor by keeping it in a damp place so as to sour it. If it is not very thoroughly ripened you might even change its flavor for the better by keeping it in a warm, dry place. But to change by any other process from one flavor to another without breaking the comb is very likely impossible.

Best Sugar to Use for Feeding.

1. Is it not generally considered that confectioners' "A" sugar is really more pure than granulated sugar? Is it not true that bluing is put in granulated sugar for the same purpose that our women put bluing in the water in which they rinse clothes?

2. If you were going to buy sugar for feeding, would you get granulated, or confectioners' "A"?

3. Is the ordinary powdered, or pulverized, sugar usually pure? or is it generally adulterated with starch? If it is adulterated with starch, does it do any harm if used in making feeding-candy for winter use? Subscriber.

Answers—1. One of the things about which there's a big lot of ignorance scattered around is regarding the matter of sugar, and I've more of that ignorance than I care for. In England they say that beet sugar is unfit for bees, and you can buy sugar there, as also in Europe, that is guaranteed pure, for bees. I tried to get some information as to sugar through the Chicago Record, one of the ablest and most independent papers in existence, and they promist to look the matter up, but never got any farther than to tell something about the preliminary part, getting the unrefined sugar from beets. I can hardly believe that Havemeyer has that paper in his power, but it seems to me that from some source we ought to be able to find out about the difference between cane and beet sugar when refined, what adulteration exists and how to detect it, what grade of sugar is likely to be most free from adulteration, and such other information as would be of value not only to the mass of bee-keepers, but to the great sugar-eating public whose health is probably much affected by the 60 pounds per capita annually consumed.

As to bluing, I can only make a guess, and I guess you're right in thinking the washerwoman and the sugar refiner have the same reason for using bluing, to prevent any yellowish look. It may not do the bees any harm, but it surely does them no good. Some samples of sugar have much more bluing than others.

2. I don't know which is best, and always use granulated.

3. I'd rather have it without the starch, decidedly. Having starch in it is something like obliging them to eat pollen.

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Editorial Comments.

Dr. Besse Exonerates Mr. Newman.—Dr. H. Besse, of Delaware Co., Ohio, who gave us unsolicited permission to publish his letter (on page 40) regarding the National Bee-Keepers' Union not aiding him in his sweet clover suit, wrote us as follows, Feb. 5:

MR. GEORGE W. YORK—
My Dear Sir:—I wish to modify my statement as made in the American Bee Journal, page 40, after reading a postal card from my friend, Mr. Newman, saying that he is exceedingly sorry that letters to my attorney, or from him, have gone astray, and thus interrupted correspondence between us. Now, after reading Mr. Newman's explanation, I entirely exonerate him, and wish you to state the same in the Bee Journal, and much oblige. Yours respectfully,
H. BESSE.

We are glad to give the foregoing as conspicuous a place as we gave Dr. Besse's former statement, for we do not desire, unjustly, to injure any man, and surely not Mr. Newman. But while the above letter exonerates him in this matter, we are still of the opinion that the Advisory Board of the Union should have been willing to aid Dr. Besse in his lawsuit.

◆

The Illinois Convention will be held in the Senate Chamber of the Capitol at Springfield, next Wednesday and Thursday, Feb. 24 and 25. Besides discussions, the following subjects appear on the printed program:

What Can the General Bee-Keeper Do to Improve His Stock?—C. P. Dadant.
Should Sweet Clover be Counted as a Noxious Weed?—Dr. C. C. Miller.
What the Statute Classes as Noxious Weeds—Jas. A. Stone.
What Can be Done to Make the State Association More Effective?—A. N. Draper.
What Combined Effort is Needed by Bee-Keepers?—George W. York.

As an open rate of fare and a third for the round trip has been secured from all points in the State, and no bother about railroad certificates, there ought to be a large attendance.

◆

The Wisconsin Convention.—Last week we promist to have something to say in this number regarding the Wisconsin State convention held at Madison, Feb. 3 and 4, which we had the privilege of attending.

We left the Chicago & Northwestern passenger station in Chicago at 8:15 o'clock, Wednesday morning, and arrived at Madison at 12:30. It was a delightful trip in one of the elegant parlor coaches found on that splendid railroad. For real comfort, that is the way to travel in the daytime. Returning, we came by way of Milwaukee, never having been in that city before.

Well, upon alighting from the cars at Madison, we found Mr. N. E. France and Mr. Harry Lathrop waiting for us. We had never seen Mr. France. Had gotten the idea that he was a big man—up and down—but found him about our own height—5½ feet. Of course he's a big man in a bee-keeping way.

After a hearty dinner at Simon's Hotel, we went to the Capitol building, where the convention met. Among those present, besides the two already named, were, Pres. Franklin Wilcox, Vice-President J. J. Ochsner, J. W. Van Allen (of Van Allen & Williams—bee-keepers and reversible extractor makers), R. H. Schmidt (of R. H. Schmidt & Co., bee-supply dealers), A. G. Wilson, Rev. H. A. Winter, Jacob Huffman, John Hanko, and J. Forncrook (another bee-supply dealer).

About the first thing on the program was a paper by the writer, on "Marketing Honey for 1897," which was followed by a general discussion. We will not attempt to go into any details, as Secretary France will soon send a report for publication.

The amalgamation question was brought up, and thoroughly considered, and with the exception of but one vote, all were in favor of uniting the two existing national bee-societies as soon as possible.

As the State legislature was in session, Mr. France was kept busy looking after the Foul Brood Bill before the committees, and also the attempt to have sweet clover removed from the list of "noxious weeds" in Wisconsin. If the present legislature doesn't hasten to grant the latter request, it will simply be a case of "Where ignorance is bliss," etc. We learned that it was by reason of some petty spitefulness that sweet clover is now clast as a noxious weed in Wisconsin. We hope the legislature will not only straighten their record on sweet clover, but also be ready to grant protection to bee-keepers from the ravages of foul brood among their bees. We would like to see Wisconsin win some fame along the line of a foul brood law. The opportunity is hers. Will she improve it? Only her wise legislators can answer.

Nearly all in attendance at the convention were extracted honey producers, so most of the discussions were along that line.

Madison is a beautiful city of some 12,000 population, surrounded by four pretty lakes. The State University is located there, for which no finer site could be found. We understand the student attendance is large. The campus or grounds could not be excelled. Along one side there is what they call "Linden Drive," being a roadway perhaps one mile in length, on either side of which is a row of graceful linden or basswood trees, perhaps 20 feet apart and 30 feet high, the trunks about 6 or 8 inches in diameter. We should like to see them in blossom, with the myriads of bees that must swarm upon them to gather the precious nectar.

The ice on one of the lakes (Mendota) was nearly 18 inches thick, and as clear as crystal. A number of men and teams were harvesting it. It was a sight to see them cut it into chunks perhaps 3 feet square and load it upon wagons, all with horses. It was quick (as well as cool) work. Acres upon acres of beautiful ice there, to be had simply for the taking.

They have a number of ice-boats on the lakes that must be something about as fast as "greast lightning," when the wind blows a gale. We could almost imagine these white-winged argosies going with such rapidity that their youthful passengers would scarcely know "where they are at." But the morning we saw them they were not "sailing."

We were surprised not to see more bee-supply dealers and manufacturers at the convention. "The woods is full of them" in that State, and we had expected to meet most of them. Many of them we have not had the pleasure of seeing.

We returned home Thursday afternoon, feeling well repaid for having made the effort to be present. We hope soon to have the convention report, giving the interesting details of the meeting.

Oh, yes, we almost forgot to say that the Association is in great need of funds to defray the expenses incurred by attempting to get the Foul Brood Bill past; also for postage, printing, etc. Secretary N. E. France (of Platteville, Wis.), can't pay all that out of his own pocket, and he should not be expected to do it, when the membership fee is only 50 cents a year. Now, every Wisconsin reader of the Bee Journal send Mr. France your little 50 cents at once, and help your State organization. If you can't attend the annual meetings you *can* aid by sending your money. Do it right away, and thus encourage Sec. France, who is working hard.

◆

More Honey-Commission Frauds.—It seems that Horrie, Wheadon & Co., are having successors in their line of fleecing bee-keepers, not only in Chicago, but also in other parts of the country.

In a recent issue of the Chicago Tribune appeared the following paragraphs referring to John A. McCutcheon & Co., who, by the way, are still advertising in the Progressive Bee-Keeper, as shown by the February number lying before us:

> "There is a padlock on the front door of No. 222 South Water street, a store until recently occupied by the commission firm of John A. McCutcheon & Co., and there is nothing but atmosphere and an odor in the store room formerly filled with poultry and other farm produce.
>
> "When McCutcheon left town about two weeks ago he was accompanied by Miss Emma Wichman, a handsome young woman who has been his book-keeper and cashier for four years. The girl's mother does not know whether the couple is married or not. No one else seems to know, either."

We are told that McCutcheon & Co. swindled their bank out of $500, by overdrawing their account. Their advertisement in the Progressive reads thus:

> "In shipping honey to the Chicago market one of the most urgent points to be followed is to know that you are consigning or selling it to an old and responsible house. We handle honey quite extensively, but not exclusively. We claim to be in better position to net you better results than such houses who make a specialty of honey, for the reason that we cater to the best class of retail merchants in our city; they all handling honey find it to their advantage to purchase of us while buying their other supplies. It will be to your interest to correspond with us before making disposition elsewhere. Write for stencils, prices, etc. We also handle beeswax extensively."

We are also informed that McCutcheon is one of that whole gang of commission frauds—Terrill Bros., Horrie, Wheadon, Bartling, etc.

The next fraudulent outfit we wish to call the attention of bee-keepers to is the Williamson Produce Co., of New York City, supposed to have been backt by E. A. Williamson, and managed by his brother, F. W. Williamson, who now has gone on a "vacation," and can't be found. Mr. H. Root, of Onondaga Co., N. Y., lost nearly $100 worth of honey by this concern. He has tried to get a settlement of his claim through the courts, but all to no avail. The firm in whose hands he put his claim for collection, after a fruitless attempt, wrote him as follows:

> "We have done all in our power to bring them [Williamson Produce Co.] to terms......Their sign is taken from their place of business. This was one of the fake concerns (of which there are more), and you are not the only sufferer. We are very sorry that you should be the loser, but if bee-keepers will continue to ship to parties of whom they know nothing, they must take the consequences."

And the latter part of that last sentence is just the plain truth. When will bee-keepers learn not to ship honey to new firms, unless such firms have undoubted recommendations? And why they do not, before shipping, enquire of the publishers of the bee-paper they take and read, is beyond us. But perhaps the majority who have recently been "caught" don't take a good bee-paper, thinking that they "know it all" anyway. Well, it may be heartless in us to say it, but, really, if some bee-keepers would rather give lots of their money (honey) to fraudulent commission-men than to pay a small subscription price for the bee-paper, they simply "must take the consequences."

Still another concern is heard from, and seems to deserve a little free advertising. Wm. H. Unger, operating under the firm name of Unger & Co., Michigan St., Buffalo, N. Y., is anything but a straight commission man, so reports Gleanings. It ought to be needless to caution bee-keeepers not to ship honey to people who are not well recommended. Far better to donate your honey to some orphanage and be done with it, than to give it to dealers of no reputation, or that are not well known.

◆

Result of the National Union Vote.—The whole number of votes cast were 167. All the old officers were re-elected for 1897, as follows:

> For President—Hon. R. L. Taylor, 127 votes.
>
> For Vice-Presidents—G. M. Doolittle, 137; Prof. A. J. Cook, 132; Hon. Eugene Secor, 114; A. I. Root, 104; and Dr. C. C. Miller, 95.
>
> For General Manager, Secretary and Treasurer—Thos. G. Newman, 131.
>
> On amalgamation—Against, 106; for, 51.

Evidently the majority of the members of the National Union want no change in any way. All right. That settles it.

The Weekly Budget.

MR. WM. STOLLEY, of Nebraska, called at our office Feb. 3, while we were at the Madison, Wis., convention. We regret very much not seeing him, as it is the second time he has called and we were away. Perhaps the third time will be more successful.

MR. WM. IDEN, of Kosciusko Co., Ind., when sending his subscription for another year, Jan. 31, wrote thus: "I am out of the bee-business at present, but I feel like helping you along in your war on *swindlers*. The American Bee Journal is doing a good work for honey-producers."

MR. C. W. LEARNED, of Michigan, when sending his second order for our alfalfa honey, offered on another page, said this, Feb. 11:

> "There is no call for any better honey than this; it sells the best of any I ever handled. I intend to keep it on hand always. I sell at 12½ cents per pound, and there is no fault found."

MR. WM. G. HEWES, of California, suggests in Gleanings that bee-keepers "make an effort to have Congress place an internal revenue duty on glucose of two or three cents or upward." He thinks that would help to remove it from the list of honey adulterants. Guess he's about right. And that would be a good way to raise necessary revenues. We just wonder if Mr. H. always cuts to the line as close as he "Hewes" in this.

MR. GEO. W. BRODBECK, of California, we regret to learn, reports that he past through a severe siege of the grippe in January. He wrote, Jan. 28, that his bees (in Los Angeles Co.) "were dumping over each other in their scramble to get into the hive." He brought them down from the bee-ranch to their present location last fall, very weak, he says, "but since the eucalyptus has begun to yield nectar they are building up fast, and from now on until July 1, means work, from morning until night, and by and by, when the days get hot, I make the drive back and forth from the apiary (35 miles) at night. So you see there is not much play in connection with California bee-keeping."

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CHICAGO, UNION PACIFIC
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We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 7½ cents per pound; 2 cans in one case, 7 cents; 4 cans (2 cases) or more, 6½ cents. The Cash MUST accompany each order. **Fine Basswood** Flavor Honey at same price; also in 270-lb. barrels.

☞ A sample of either honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

Now it seems to us here is a splendid chance for any bee-keeper to supply his home demand after his own crop is all sold. Or, why not begin now to create a local honey-trade? Order one 60-pound can first, and start out among your neighbors and friends, and see what you can do. You ought to get at least 12 cents per pound in 5-pound lots, or 40 cents for 3 pounds. Some may be able to do even better than that, though we think that enough ought to be sold at these prices to make a fairly paying business out of it. Give it a good trial. Push it. It may grow into a nice winter's work for you.

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Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Flavor of Extracted Honey from Old Brood-Combs Compared with Section Honey.

Query 44.—Can you get extracted honey from old brood-combs of as fine flavor as that in first-class sections?—MICH.

H. D. Cutting—No.

Eugene Secor—Yes.

Chas. Dadant & Son—Yes.

Mrs. J. N. Heater—No, sir.

Dr. A. B. Mason—No, sir'ee.

G. M. Doolittle—I so believe.

Prof. A. J. Cook—Just as good.

Dr. C. C. Miller—I'm afraid not.

Jas. A. Stone—I have never tried it.

R. L. Taylor—Yes, if they have been kept in good condition.

E. France—No. But there is not as much difference as one would think.

Mrs. L. Harrison—I should think that the flavor would be as fine, but be darker in color.

Dr. J. P. H. Brown—That from the sections will have the best flavor and the best color.

P. H. Elwood—No, nor from any other kind of comb will the flavor be as good as comb honey.

J. A. Green—Yes, if the combs have not been placed so that pollen has been deposited in them.

C. H. Dibbern—Yes, the flavor seems to be all right; but it is usually darker and not so salable.

W. G. Larrabee—Not unless the frames have been used for nothing but extracted honey for several years.

Emerson T. Abbott—If the old combs are clean, I think the honey will be all right. At least this has been my experience.

Rev. M. Mahin—I have not seen any difference, if the honey is extracted from the old combs as soon as it is sealed, or not long after.

G. W. Demaree—Undoubtedly, I can. As a rule, bees clean and polish the cells of both old and new combs thoroughly before depositing honey in them.

J. M. Hambaugh—While the flavor of the two will probably be the same, the color of the honey from the old combs may be darker. This, however, is owing to the condition of the old combs.

A. F. Brown—Yes, beyond question. I have produced many tons of choice extracted honey in old combs, four, five, or ten years old. The fine flavor comes from allowing the bees to thoroughly ripen it in the hive.

J. E. Pond—It will depend entirely upon what the bees fill them with. I prefer old combs to extract from, as they are stronger, and will stand the work of extracting better. I am assuming, however, that the old combs are clean and nice before the bees fill them.

◆

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

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	5lb	10lb	25lb	50lb
Alsike Clover	$ .70	$1.25	$3.00	$ 5.75
Sweet Clover (white)	65	1.20	2.75	5.00
White Clover.......	.90	1.60	3.75	7 00
Alfalfa Clover. ...	.65	1.10	2.70	5.00
Crimson Clover....	.55	.90	2.00	3.50

Prices subject to market changes.

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Your orders are solicited.

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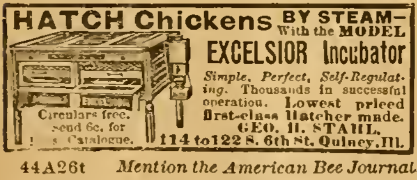
CHICAGO, ILLS.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M. Rumely Co. Laporte, Ind.
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General Items.

Immense Growth of White Clover.

Bees, so far as a crop of honey was concerned, were a complete failure here, but the wet season started an immense crop of white clover, that we hope will even things up this year. A. C. MATTHIAS, M. D.
Putnam Co., Ohio.

Report for 1896.

I started last spring with 2 colonies, increast to 8, and took about 30 pounds of nice, white clover honey. I get the American Bee Journal every Friday, and it is a welcome visitor at my home.
S. H. STOUFFER.
Blair Co., Pa., Feb. 3.

Bees Doing Well.

We are having the coldest weather we have had this winter. I am very well pleased with the Bee Journal. My two colonies of bees are doing very well so far. In this section of the country the most of the people keep all the way from 2 to 10 colonies, which they handle on the old-fogy style. One of my neighbors is wintering his bees in a way which, if it proves all right, I will explain later on.
JAMES A. DAVIS.
Appanoose Co., Iowa, Jan. 25.

Yellow Sweet Clover—Amalgamation

I have been interested in what I have read in the Bee Journal about sweet clover as a honey-plant, and would like to ask where I can get yellow sweet clover seed in small quantities. The basswood is being rapidly cut off, and bee-keepers who own farms ought to raise Alsike, white and sweet clover—something that provides bee-pasture as well as ordinary farm crops.

I, for one, am in favor of amalgamation, and think that a majority of the members of the old Union will vote that way. The old Union has outlived its usefulness, when it fails to take up such cases as are mentioned on page 40. We who pay our dollars as members want protection, if necessary.

Bees are wintering fairly well up to date, but the worst part of the winter is to come yet. I have 80 colonies packt on the summer stands, and 125 in the cellar. The honey crop was fairly good here from basswood and buckwheat. Success to the "Old Reliable." WARD LAMKIN.
Cayuga Co., N. Y., Jan. 26.

[Just as soon as we find some of the yellow sweet clover seed, we will announce in these columns where it can be had. At present we do not know where there is enough to be worth mentioning.—EDITOR.]

Report for the Past Season.

The past season was not as good as expected. The spring opened very bright, and the bees were in pretty good condition to gather a big crop of honey. The white clover began to bloom the last of May, and the forepart of June the bees did very well on it—they stored the honey in the supers quite well. The best of the honey-flow stopt the latter part of June, but the bees still gathered enough to keep them in good condition, and all colonies were very strong in bees. White clover has a good stand for next year.

In July the basswood began to bloom, and they were just loaded with blossoms—lookt as if we were going to have a big crop of honey. When they were in mid-bloom the bees did not work on them yet, which I did not know any reason for, but as I examined the blossoms, by picking them apart with the fingers, there flew out lots of little insects, which lookt like little,

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"I was suffering from Neuralgia, and found quick relief."

"I got more relief from Rheumatism in 12 hours after taking Yellowzones than from all else, tho I was a skeptic."

☞ See A. B. J., pages 809, 812, Dec. 17.

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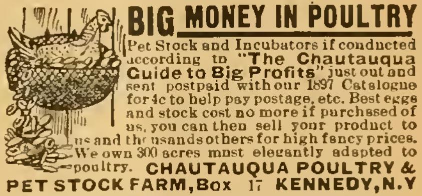
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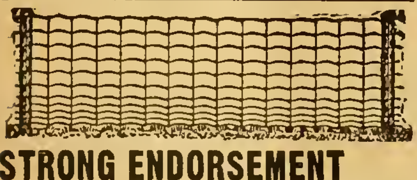

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WILL W. SHEPARD.
Honeoye Falls, N. Y. (in letter Jan. 18, '97) to
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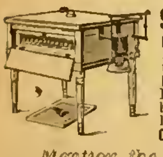

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M. H. HUNT, Bell Branch, Mich.
WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

white flies, and which I suppose was the cause of their yielding no nectar in this locality.

We generally get most of our honey crop in the fall, from wild flowers, which grow on the lowlands of the Mississippi bottoms, but as the high water stood on the bottoms too long for a good field of flowers, some of the honey-plants never showed up at all, and those that came did not seem to yield any nectar. All the colonies were light in stores, and we had to feed them in the fall for winter stores.

Last fall we had lots of rain, and white clover looks better than ever.

We put our 88 colonies in the cellar Nov. 29, and they are very quiet and in good condition so far.

I hope that the two Unions will unite, when I think every bee-keeper will join it.

In one respect it was a streak of luck that we did not get a big crop of honey this year, or maybe we would have been caught by some dishonest honey-dealer, too. The American Bee Journal did all it could to save the bee-keepers from getting robbed by the honey-swindlers. I think the way the dishonest honey commission men cheated some of the bee-keepers out of their honey will be a warning to those lucky enough not to get caught by them; but there will be some more new dishonest honey-men, if nothing is done in the line to prevent it.

The American Bee Journal is more crowded than ever with good, interesting information, and I hope the bee-keepers will stand shoulder to shoulder with Mr. York to guard their own interests.

EDWARD YAHNKE.
Winona Co., Minn., Jan. 14.

Experiment—Difference in Colonies.

It seems that we Texas folks have no representative in the "Old Reliable." One would perhaps conclude that the bee-keepers in the South were all dead, or moved further south, got rich, and had gone into the railroad business. Such is not the case. Many of us are still kicking against great odds and little ends.

Bees are in fair condition, the winter mild, rain plentiful, and the outlook for an early honey-flow from horsemint is excellent. The whole earth, in this locality, is covered with the plant.

The writer and a neighbor—Uncle John Carns—have conducted an experiment relative to the cause of such a vast difference between colonies situated in the same yard. The results of our experiments have proved very conclusively, to my mind, that if all queens are well developt, not older than two years, purely bred, all combs straight in the brood-chamber, sufficient supplies for brood-rearing in early spring, all run for extracted honey, and work done in order, there will not be a difference of five pounds between the colonies. Until we can have uniformity along this line, we cannot claim to have reduced apiculture to a science.

We frequently hear bee-men say that some colonies did very well, while others did nothing, and will have to be fed. In cases like this, all else being favorable, I would advise procuring a new queen, and the immediate execution of the old one.

C. B. BANKSTON.
Burleson Co., Tex., Jan. 27.

Results of the Last Season.

I commenced last spring with 30 colonies, and 3 weak ones—one had lost its queen; as soon as I ascertained the fact, I sent to Texas, and after waiting about two weeks I received a queen. This was the beginning of May. I had given up getting one by that time. My queens began to lay, so I gave them eggs in the comb; they built a queen-cell, and the queen was hatcht, but I had received my queen. This was near the first of June; I made a nucleus, putting the queen which I had received therein. In two or three days I opened the hive, and to my surprise not a bee was to be

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For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 25 cents per pound, CASH; or 28 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly,** for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,
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DR. GEO. LACKE, Newburgh, Ind.

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OR

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GEORGE W. YORK & CO., 118 Michigan St., CHICAGO, ILL.

seen—queen and all gone. I then lookt at the other hive that I had given a comb with eggs, and no queen to be found there, but they had started worker-brood. I then took the "A B C of Bee-Culture," and there I found a remedy. I put an empty hive in its place as nearly the same in color as possible; then I took the other colony off about 10 rods, shook all the bees in the grass, and returned the comb to the empty hive, till I got all the combs back, save one that contained worker-brood. I then gave them a queen-cell ready to hatch, and in about 48 hours the queen was out. I waited till she became fertile, then I gave them a frame of brood. By fall I had a good colony.

Now I will return to my nucleus: I took the comb of brood and gave it to another colony, and in due time they all hatcht.

The 30 colonies all sent out a prime swarm. One of the swarms clustered on a tree in the city. I had enough swarms later on to make me 75 colonies, but some were rather light.

I got 400 pounds of comb honey, mostly basswood and clover, and 200 of extracted. Clover lookt splendid the first of this month, then it was covered with snow. We are having splendid sleighing at this date. The mercury on the 24th, at sunrise, was at zero; on the 25th, 6 degrees below, with high winds. JACOB MOORE.

Ionia Co., Mich., Jan. 28.

◆

Surrounded with Honey-Plants.

I have built a small house and a good hen house on two acres, where there are large fields of alfalfa all around, acres of the common white sweet clover within a few hundred yards, with a good lot of cleome growing in the unbroken pasture above the ditch and ditch banks, roadsides, etc., beside a pretty varied wild flora due to dirty farming and unused patches; and plenty of cottonwood and willows on the ditch bank and Lapoudre river.

Weld Co., Colo. WALTER A. VARIAN.

◆

Are Bees Domestic Animals ?

To the above question I answer no, not if I understand the meaning of "domestic."

1st. Because you cannot tame them as you do other animals. For instance, the bees in the timber are just as tame as those in the hive, and the bees in the hive will sting just as readily as the bees in the timber.

2nd. They are not domestic animals because there is no assurance of their remaining; they may be in your hive to day and somewhere else to-morrow, and you cannot identify them unless you follow them from your hive to where they go. If your cow or horse goes to your neighbor, you go and identify your property.

3rd. But the bee is an animal in every sense of the word, because it belongs to the animal kingdom. In nature we have three kingdoms only—the animal, mineral and vegetable—and the bee is not mineral nor vegetable, so it must be animal. But some say it is a bug or insect. What is an insect if not an animal ? Four or five years ago the board of supervisors in our county concluded they would tax bees, because they were profitable to the farmer. Part of the assessors assest them, and part did not, and the board were afraid to try the merits of the case in court, and dropt the case, and did not assess bees any more.

The bee is not taxable property in Iowa, because all animals must be six months old in order to be taxable property—except dogs, and they are not taxt according to value, but per capita. So I take the position that the honey-bee is an animal, but not a domestic animal. O. P. MILLER.

Guthrie Co., Iowa.

◆

Wintering Bees.

I put my bees into winter quarters Nov. 17, 1896. I put 18 colonies into a shed open to the south, with cushions, etc., on top of the frames, with the supers on. The hives are about 18 inches apart, packt between and at the back with straw, and covered over with blankets, old sheep-skins, etc. I have 10 colonies in the cellar, where I always wintered my bees before this, but I am getting old, and it is hard work to carry bees in and out of the cellar. I thought I would try the shed for some of them. I left one chaff hive on the summer stand, and one colony in a large, hollow log. I got my son and his hired hand to roll it into the bee-yard, and set it up, and I painted it and put it in good shape, just for fun, and to see what they will do. If they ever fill it, I will put supers on the top.

My bees all seem to be doing well so far. They had a good flight on New Year's day. They came out some to-day. I nailed up boards on the south side of the shed to shade the hives from the sun. One bee-keeper said I would better shut the bees in their hives so they can't fly out and get chilled. NOAH MILLER.

Iowa Co., Iowa, Feb. 3.

◆

Books on Keeping Well.

In a letter from Illinois, dated Jan. 26, the writer wishes me to tell in the American Bee Journal how to cook, etc. Now it appears to me that he wants to know what is the proper kind of food, and how much, and when is the proper time to eat, etc. Then, again, I am requested by many to write a cook-book on my method of treatment. Well, I have no time to write a cook-book, or any other book, at present, and then the American Bee Journal is not the proper periodical in which to publish such subjects. Now there is any quantity of excellent books publisht, and if the public will only read them, and then put their precepts into practice, there will be no necessity of being sick. Sickness of all kinds is certainly avoidable. Now I propose to tell the readers of the American Bee Journal a few of those books that I can recommend.

Dr. Emmett Densmore, an English physician's book, "How Nature Cures," single copy, $2.00, postpaid. It is an excellent work. It tells how to treat all kinds of fevers without medicine, what the natural food of man is, etc.—just what one wants.

Then there is the "New Methods in Health and Disease Without the Use of Drugs," by Dr. W. E. Forrest, 270 pages.

It is a thorough and scientific system, and the means for carrying it out can be found in every home. No expense, and any intelligent person can carry it out or apply it. The new method is just as important in preserving health as in curing disease. Price, $1.00, postpaid. Dr. Dewey's two books are extraordinarily good; both together. $3.00.

Dr. Charles E. Page's works, "Natural Cure of Consumption," and "How to Feed the Baby," worth their weight in gold to any one raising babies. "Pneumonia and Typhoid Fever without Medicine," in fact all fevers. He says just as I do, that all fevers can be cured from a few hours to three days. He has treated cases successfully by telegraph, at St. Paul and New York, from Boston.

Then you can get a book on massage, by Dr. Taylor, 85 cents, by mail. That will tell you how to cure almost any kind of disease mechanically, both by hand and machinery, as it is sure to purify the blood and equalize the circulation. Massage is my principal method, although I think I have made considerable advance in my 40 years of practical experience. Understand that, like my bee-keeping, I learned this method before I ever saw the books.

Then there is Dr. Joel Shew's "Hydropathic Family Physician," one of the very best works on hydropathy for family use.

Now understand, my bee-keeping friends, that you can learn by these books a great deal better than I could when I had to pick it up alone, as you might say. I can now step into a sick-room with all the confidence that you can possibly have when you undertake to open and examine a colony of bees, with my knowledge of hygiene, exercise by massage, hydropathy, etc. Instead of killing pain, we remove the cause in a very few minutes, and the pain ceases. The fire bell rings the alarm of fire. What would you do? Stop the bell from ringing? No, by no means. Put out the fire, and then there is no necessity of ringing the bell. DR. E. GALLUP.

[Upon receipt of the price named, we can supply any of the books mentioned by Dr. Gallup.—EDITOR.]

Poor Season Last Year.

I like the American Bee Journal very much; it is always a welcome visitor. Last season was a very poor one for my bees. I had to feed them. I am a beginner, and have but two colonies, but they are doing nicely. FRED HASSMANN.

Madison Co., Ill., Jan. 28.

Prospect for a Good Honey-Flow.

We are now about in the middle of our winter, or the time that we keep our bees in their winter quarters. I examined them a few days ago, and found all alive, and in a healthy condition. The prospect is now good for a good honey-flow next season.

S. B. SMITH.

Stevens Co., Minn., Jan. 30.

Did Well Last Year.

Bees did well last year—8 colonies produced over 250 pounds of honey. I have 19 colonies, 4 in Simplicity, 6 in alternating, and 9 in box-hives. I will transfer the 9 to alternating hives next spring. Comb honey sells here at from 12½ to 15 cents per pound, according to quality. Long wave the "Old Reliable." C. W. DRURY.

Christian Co., Mo., Jan. 28.

Ventilating a Bee-Cellar.

We are having some pretty cold weather here, with a stiff breeze, and I find it rather difficult to keep the temperature of my bee-cellar right without closing the ventilators more than I like to. At such times the cellar smells quite rank, and the bees get a little restless. I have no doubt but a little artificial heat, judicially applied, at such times would be a good deal of benefit. If 5-inch iron piping, water tight, did not cost so much, it would be, where the lay of the land is suitable, a most excellent thing. I have a 6-inch tile subearth ventilator coming into my cellar, and with it there was no difficulty in keeping the temperature right. But the air came in so loaded with moisture that I was obliged to close it. But with a water-tight iron pipe there would be no trouble from that source. I have no doubt but that such an arrangement would be fine for our dwellings. S. T. PETTIT.

Ontario, Canada, Jan. 26.

Bees Seem Active.

Bees seem to be active this spring. I wintered 75 colonies, mostly in 8-frame hives. I am going to transfer to 12-frame hives soon. JOHN UPHOUSE.

Skagit Co., Wash., Feb. 2.

Expects a Good Season.

I see in the American Bee Journal that others have such fine weather for the bees to fly out. My 10 colonies were gathering pollen up to Jan. 25. The weather has been like spring. I think the coming season will be a fine one for honey. W. A. PELLEW.

Nevada Co., Calif., Feb. 2.

Only Half a Crop Last Year.

I take seven papers, and I think the American Bee Journal is the best. The good season I predicted last spring was cut short by dry weather in June. I only got 50 pounds to the colony, which is half a crop with us. There was no fall flow, either. NATHAN RICHARDSON.

Steele Co., Minn., Feb. 3.

A Profitable Pleasure.

I began bee-keeping for pleasure by purchasing three colonies of hybrid bees June 3, 1893. Since that time I have secured 11,240 pounds of surplus honey, and increast to 125 colonies, which I have now in winter quarters, all in good condition. My bees have not had a flight since Oct. 27, and it will be 70 days yet before they can go out. It seems strange to us up here when we hear bee-keepers down South talking about their bees not having a flight for six weeks! WILL J. SARFF.

Todd Co., Minn., Feb. 4.

Reports A Good Honey-Crop.

My honey crop was a good one the past season. I was so lame last spring that I thought best to sell part of my bees, and disposed of all but 80 colonies, and from that number I got 6,000 pounds of comb honey, all in one-pound sections, and it is all sold long ago, and I have my pay. It sold for 13 cents per pound, all but 200 pounds of very light-weight sections that were shelly or not capt and properly filled. One man has sold my honey for more than 25 years in Boston. IRA BARBER.

St. Lawrence Co., N. Y., Jan. 30.

The Unions and Amalgamation.

I am sorry to see so much discordant feeling as has been workt up over the amalgamation question. Instead of uniting the apiarists of the United States, it seems at present to look like the opposite. When I joined the Union I did not expect to need its help, and never have. I joined to help a good cause. Likewise, I expect to become a member of the United States Bee-Keepers' Union, amalgamation or not, because we need that especial line of work lookt after, and I feel, with the able hands at the head, good work can and will be done, and not require any great amount of money, either. But work for a law against adulteration that will cover the United States, then make use of it, by collecting evidence and letting the public prosecutors do the work. The Union should "stand to" and see that it is done, and a few cases will "settle their hash."

But I feel that I cannot leave this subject without censuring "Union" for his uncalled for insinuations in regard to Manager Newman's honesty. I would feel considerably "scarce" in trusting such things in his (Union's) hands, if I knew who he was, but as he was ashamed to back his article by signing his name, we know him not. And when he has proven himself by good works, as the General Manager has, we will have a better opinion of him.

DR. G. A. MILLARD.

Los Angeles Co. Calif., Jan. 23.

[Doctor, we think you are just a little wrong about thinking that "Union" made insinuations about the present Manager's honesty. We don't think that anybody ever questioned his honesty at all. But if you refer to the objection made to the ballots passing through the General Manager's hands, then we must agree with "Union." It certainly is not businesslike to have the ballots received by the principal officer of any organization, especially when that officer is a candidate. While it has been done so heretofore, that is no reason why such an unusual procedure should continue. Neither should the General Manager desire to have an election so conducted, in our opinion. A committee, specially selected for such duty, we think, is the only proper way to do it. We hope that hereafter, no matter who is General Manager of the Union, the ballots will not pass through his hands. It is better to avoid the very appearance of an opportunity for criticism in a matter of this kind.—EDITOR.

Results of the Past Season.

My bees did fairly well the forepart of last summer. I started with 4 colonies last spring, increast to 11, 2 swarms absconding to the woods, leaving 9 for over winter. I am at present trying to winter one colony on the summer stand, that barely covers four frames, thinking perhaps I might learn a little by it. I winter all on the summer stands. We have had some cold weather since Jan. 1, it being down to zero and 4 degrees below, and still the bees seem to be all right so far.

EDWIN TRITTENBACH.

Northampton Co., Pa., Feb. 4.

White House Whitewash.

This was mentioned by C. W. Curry, on page 76. Brushes more or less small may be used according to the neatness of the job required. It answers as well as oil paint for wood, brick or stone, and is cheaper. It retains its brilliancy for years. There is nothing of the kind that will compare with it, either for inside or outside walls. Coloring matter may be put in, made of any shade you like. Spanish brown stirred in will make red-pink. Finely pulverized common clay well mixt with Spanish brown will make a reddish stone color, etc. Green will cause it to crack, and should not be used, as the lime injures the green.

Republic Co., Kans. WM. H. EAGERTY.

Report for 1896.

The bees in our section did fairly well last year. We had, for us, a large quantity of white honey from the basswood and clover, and it was very nice not to have very much of the buckwheat and other red honey from the fall flowers. We had a frost every month in the year at my place. I sold and doubled my bees down to 80 colonies in the spring. We had the first swarm May 25, the last one Aug. 28. I put 190 colonies, good and poor, into the bee-house last fall, and sold four in swarming time.

We are very much pleased with the Bee Journal, and always give it the preference.

ANDREW M. THOMPSON.

Allegany Co., N. Y., Jan. 21.

HONEY and BEESWAX

MARKET QUOTATIONS.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

Chicago, Ill., Feb. 8.—Fancy white, 12c.; No. 1, 10@11c.; fancy amber, 9@10c.; No. 1, 7@8c.; fancy dark, 7@8c.; No. 1, 7c. Extracted, white, 5@7c.; amber, 5@6c.; dark, 4@4½c. Beeswax, 25@27c.

Very little call for honey of any kind.

Albany, N. Y., Jan. 29.—Fancy white, 12-13c.; No. 1, 11-12c.; fancy dark, 7-8c.; No. 1, 6-7c.; Extracted, white, 5½-6c.; dark, 4-5c.

The honey market is very quiet and stock moving very slowly, even at reduced prices. White clover is not plentiful. Extracted is moving very slowly, but we hope for an improved demand soon.

Indianapolis, Ind., Dec. 31.—Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Boston, Mass., Dec. 31.—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Cleveland, Ohio, Dec. 31.—Fancy white, 14½@15c.; No. 1 white, 12½@13c. Extracted, white, 6@7c.; amber, 4½@5½c. Beeswax, 22@25c.

There is not very much honey in our market. Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

New York, N. Y., Dec. 31.—Fancy white, 11@12c.; fair white, 9@10c.; buckwheat, 7@8c. Extracted, white clover and basswood, 5@5½c.; California, 6c.; Southern, 50c. per gallon. Beeswax in fair demand at 26@27c.

The market is quiet and inactive. Demand light and plenty of stock on the market.

Cincinnati, Ohio, Feb. 8.—No. 1 white, 12@13c.; No. 1 amber, 11@12c.; No. 1 dark, 10@11c. Extracted, white, 5@6c.; dark to amber, 3½@5c. Demand for all kinds of honey is exceedingly slow.

Beeswax is in fair demand at 22@25c. for good to choice yellow.

Kansas City, Mo., Feb. 8.—No. 1 white, 12@13c.; fancy amber, 11-12c.; No. 1 amber, 10-11c.; fancy dark, 10c.; No. 1 dark, 8c. Extracted, white, 5½-6c.; amber, 5 5½c.; dark, 4-4½c. Beeswax, 25c.

San Francisco, Calif., Jan. 27.—White comb, 9-10c.; amber, 6-7c. Extracted, white, 5-5½c.; light amber, 4-4½c.; amber colored and candled, 3¾c.; dark tule, 2¾c.

Beeswax, fair to choice, 23-25c.

Philadelphia, Pa., Feb. 2.—Fancy white comb, 12-13c; fancy amber, 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3½-4c. Beeswax, 25c.

Season is getting over for comb honey—very little demand. Extracted in good demand.

St. Louis, Mo., Dec. 30.—Fancy white, 14c.; No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@10½c.; fancy dark, 9@9½c.; No. 1 dark, 7@8c. Extracted, white, in cans, 6@7c.; in barrels, 5@5½c.; amber, 4½@4¾c.; dark, 3½@4c. Beeswax, 26½@27c.

Baker stock of extracted honey, 4@5c; stock very scarce. Fair receipts of comb. Beeswax in good demand.

Detroit, Mich., Jan. 9.—Fancy white, 13-14c; No. 1, 12-13c.; fancy amber, 11-12c.; No. 1 amber, 10-11c.; fancy dark, 9-10c.; No. 1, 8-9c. Extracted, white, 5½-6c.; amber, 5c.; dark, 4-4½c. Beeswax, 25-26c.

Minneapolis, Minn., Dec. 31. — Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Buffalo, N. Y., Feb. 5.—Strictly fancy comb, 1-pound, moving quite well at 9 and 10 cents, while we hear of some grades a little less. No. 2 and other grades range from 7 to 5 cts. Quite liberal amounts can be sold if forced. Extracted, 3-5c. Better write before spipping.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEOELKEN,

Kansas City, Mo.
C. C. CLEMOMS & CO., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & CO., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
WILLIAMS BROS., 80 & 82 Broadway.

St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.
S. H. HALL & CO.

Milwaukee, Wis.
A. V. BISHOP & CO.

Boston, Mass.
E. E. BLAKE & CO., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. MCCULLOCH & CO., 380 Broadway.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central avs.

Convention Notices.

ILLINOIS.—The annual meeting of the Illinois State Bee-Keepers' Association will be held at the State House, in Springfield, Feb. 24 and 25, 1897. The State Farmers' Institute meets the same week—including all the State live stock associations—and our Executive Committee, along with them, arranged for this date, in order that the Legislature might be in good working condition. (We all know what for.) There will be an effort made this winter to get a Pure Food Bill past, and that means bee-keepers want a hand in it, to see that the adulteration of honey shall cease FOREVER AND EVER. Two years ago we succeeded in getting an Anti-Adulteration Bill through the Senate, but it failed in the House, only for want of push. Let bee-keepers throughout the State impress upon their Representatives the importance of such a bill, and come to our meeting to refresh their minds on the subject.

Railroad rates will be no greater than a fare and a third, which will be announced later. Our programs will be issued along with the other State Associations named above.
JAS. A. STONE, Sec.
Bradfordton, Ill.

WANTED—ATTENTION !

SEE HERE, Friend Bee-Keeper, the best goods are none too good, and the lowest prices are none too low for the present times, so down go the prices for 1897 on **Full Line of Bee-Keepers' Supplies.**

I defy competition in quality and workmanship. **Working Wax** into Foundation when sent to me, a specialty. Write, without fail, for Catalog. My prices are worth looking at. Wax wanted at 26c cash, or 29c in trade, delivered. August Weiss, Hortonvills, Wis.

6A8t *Mention the American Bee Journal.*

The Rockford Seed Farms, owned by Mr. H. W. Buckbee, the great seedsman of Rockford, Ill., are among the very best in this whole country. His catalog is a beauty. Send for it at once, not forgetting to say you are a subscriber to the American Bee Journal. We mention here a few of the leading features of the Buckbee Seed Catalog:

Buckbee's Great Bonanza Artichokes—the great hog food. Buckbee's New Golden Lima Bean—the best bean of the age. Sunset Beet the leading variety. Mastodon Mangel—the latest creation in this great stock food family. Buckbee's Extra Early New Queen, Race Horse, Great Dand, and Christmas King Cabbages—a quartet of cabbages without superiors. Buckbee's Majestic and Victoria Carrots—the leading stock feeding varieties. Chief Cauliflower—the best up-to date variety. Rockford Pickle Cucumber—a beauty in every sense of the word. First of all, best of all and Private Stock Evergreen Sweet Corns—the big three leaders. Superb Varieties of Lettuce. Phenomenal Varieties of Muskmelon. Buckbee's Monte Christo Watermelon—a world beater. Buckbee's Golden Globe Danvers Onion—more largely planted by Onion Specialists than any other variety. New Sandwich Island Pumpkin. Lightning Express Peas—the earliest on record. Rockford Market Radish—the favorite among gardeners and planters. Buckbee's New Self-Supporting Tomatoes. Pedigree Field Corn. Magnificent Oats. Thoroughbred Potatoes. Seed Drills, Cultivators, etc. A gorgeous array of Flower Seed, including the latest fashions in Sweet Peas, Asters Balsams, Pansies, Nasturtiums, Verbenas, Phlox, Poppies, Japanese Morning Glories, etc. A magnificent assortment of Prize Winning Chrysanthemums, Carnations, Roses, Geraniums, Fuchsias, Colens, Violets, etc.

* * *

The "Successful" Incubator seems to be well named. It is manufactured by the Des Moines Incubator Co., of Des Moines, Iowa, and was exhibited at the big Poultry Show held at Chicago during the blizzard week of January 25 to 30. The conditions under which a good hatch was secured is something remarkable, and is evidence that the Des Moines concern knows how to build an incubator that will hatch eggs almost anywhere. 400 eggs were purchast at a commission house, incubated for 18 days at Des Moines, Iowa, then hauled one mile by express wagon to the depot, where the incubator and the eggs were loaded into the express car and started on their 375-mile journey, to be hatcht out two days later. This transfer was made during the coldest wave of the season. On arrival at the "Windy City," another haul was made by express wagon to the Exhibition Hall, where overcoats and gloves were necessary articles. Still they hatcht until the machine was literally filled with chickens, and was highly deserving of the great attraction it created. An incubator furnisht with a regulator that will govern the heat on board of an express train, and hatch eggs accompanied by a 20 degrees below temperature is certainly up-to-date. Write them for a catalog telling all about their "Successful" chicken hatcher. Of course, you'll not forget to say you read the American Bee Journal.

* * *

Bee-Keepers' Photograph.—We have now on hand a limited number of excellent photographs of prominent bee-keepers—a number of pictures on one card. The likeness of 49 of them are shown on one of the photographs, and 121 on the other. We will send them, postpaid, for 30 cts. a card, mailing from the 121 kind first; then after they are all gone, we will send the 49 kind. So those who order first will get the most "faces" for their money. Send orders to the Bee Journal office.

Wanted—A Situation

In an apiary here in the East, not further west than the central part of N. Y. State. Reference, Mr. J. D. Goodrich, Practical Apiarist, East Hardwick, Vt. State wages.

B. D. COOK, Wilton, N. H.

Mention the American Bee Journal.

Cockerels **A Choice Lot** of thoroughbred B. P. Rocks, S. C. Black Minorcas, S.C. Brown Leghorns, $1.25 each. Eggs from same breeds in season $1.25 for 15. Also **PLANTS**—Strawberry, Red and Black Cap Raspberry.

Mrs. L. C. AXTELL,
7Atf ROSEVILLE, Warren Co., ILL.

Mention the American Bee Journal.

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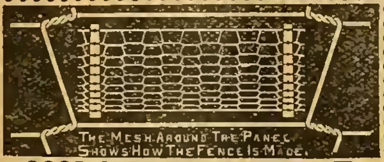
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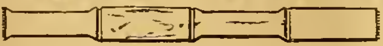

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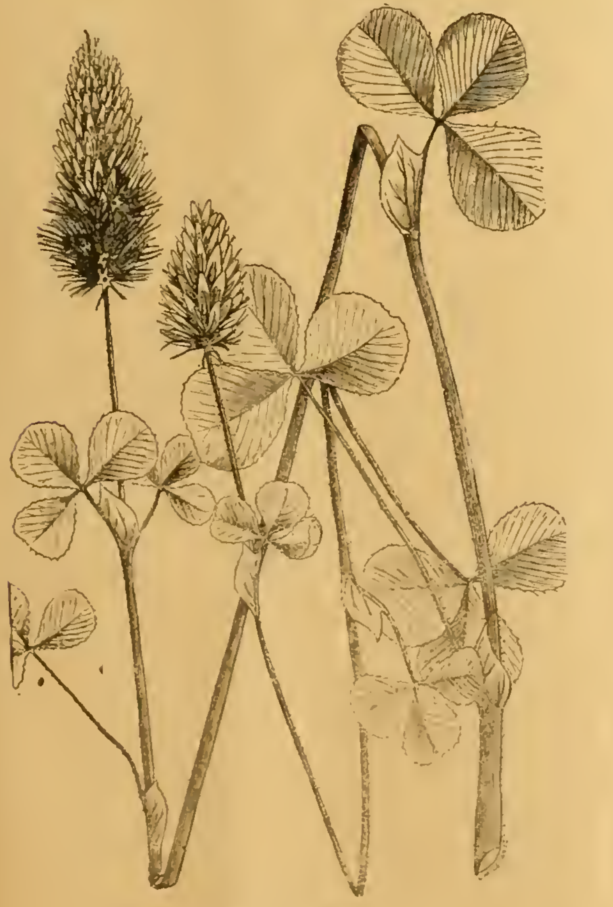
37th Year. CHICAGO, ILL., FEBRUARY 25, 1897. No. 8.

Contributed Articles

Growing Crimson and Alfalfa Clover.

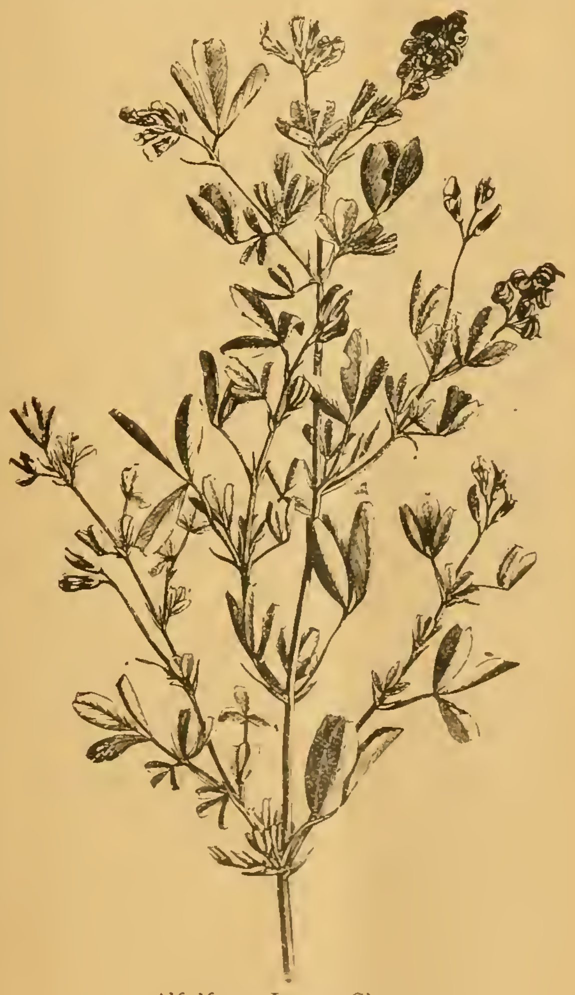
BY MRS. L. C. AXTELL.

We have great hopes for the crimson or scarlet clover as a spring honey-plant. If we can get that to live and blossom for the bees it will furnish nectar just in the right time, so that no spring feeding will be required, and it is so much better for the bees, and for the bee-keeper, for the bees to get their supplies from the flowers. It is conducive to their best health.



Crimson Clover.

The crimson clover blossoms just between apple-bloom and white clover, is in blossom about two weeks, and is gone before white clover comes into bloom, or before the white yields much nectar. The first blossoms of the white does not seem to yield much nectar. I have seen the roadsides and fields perfectly white with blossoms from white clover and scarcely a bee to be seen upon the blossoms; and the next week the bees would be working with all their might upon it, fairly tumbling over each other to save the nectar.



Alfalfa or Lucern Clover.

I used to be frightened, sometimes, to see how little attention the bees paid to the white clover, for fear it would be out of blossom and the bees get no honey, but I believe I have never seen a season but what they got a crop of honey from white clover when there were blossoms; and the same thing I think will apply to the scarlet or crimson clover—bees work on it as eagerly as on the white.

Crimson clover is a most beautiful flower, rivaling many of our cultivated flowers in our flower beds. It is so rich and deep; many persons were attracted to stop and admire our field while in blossom, and remarkt that it made a beautiful pansy bed. Just on the opposite side of the road was a red clover field that smelled very fragrant, but no bees could be seen there; probably the only reason, no bees had tongues long enough to reach the honey that was there waiting in the air, or it would not have been so fragrant. There were plenty of bumble-bees. Now I wish we might in some way get hold of a bee that could reach the honey in the common red clover.

Our scarlet or crimson clover that was cut for seed, so seeded the ground that it made a splendid stand, probably because it sowed itself more thickly than if sowed by hand. As soon as it was cut and removed from the ground Mr. Axtell cultivated and harrowed the ground, making the surface very mellow. Where it came up very thick the weeds did not bother it any, but where it came up thin the weeds bothered it. Mr. Axtell mowed the weeds down to give it a chance, but the weeds sprang up again and nearly killed it out, and so where it was sowed by hand in June the weeds nearly choked it out, because of its being so thin. But where it was sowed in the corn just before the last cultivation, the weeds did not bother, but it did not grow so thrifty and strong as where sowed on land by itself, but did better than what he sowed in September. October is altogether too late to sow it; it entirely winter kills, or kills out the first heavy freezes before winter.

Mr. Axtell thinks the best way to start it is by sowing it in the corn, and then if not on land to be left for its blooming, it can be plowed under the following spring to enrich the ground. After being cut for seed it can be removed from the ground for the threshing in four days, if the weather is drying, but if damp and rainy, it should stand longer, or until dry. Warren Co., Ill.

[Ten to 15 pounds of crimson clover seed are necessary to seed an acre properly.

The Prairie Farmer of recent date contained the following by Prof. C. C. Georgeson, of Kansas, who wrote in reply to a question about the growing of alfalfa :—Editor]

ALFALFA IN NORTHERN ILLINOIS.

Alfalfa can be grown successfully in northern Illinois provided a suitable soil is selected. It will not do well on a soil which has a layer of either hardpan or rock within two or three feet of the surface, nor should it be sown on land where the water level is within that distance of the surface. It prefers a deep, somewhat porous subsoil, such as we find in alluvial river bottoms, but it will also do well on any reasonably good upland soil where the roots can penetrate eight or ten feet deep. The climatic conditions of northern Illinois should be no obstacle to its successful culture.

The method of seeding this crop depends somewhat on circumstances. In Illinois, where the rainfall is usually sufficient for the growth of crops and where the summer drouth is seldom severe, alfalfa seed can be sown with oats in the spring, as grass or clover is sown, either broadcast or drilled. If, on the other hand, there is danger of drouth in July, the young alfalfa might suffer severely after the removal of the oats. In that case it would be better to sow the seed by itself. Of late years, I have used a common shoe-drill with press wheels in preference to any other method of seeding alfalfa.

It requires 20 pounds of alfalfa seed to the acre. When sown by itself on old ground, the weeds usually spring up with great vigor in early summer, and if not held in check they will choke out the alfalfa. To remedy this, the mower should be run over the field as often as it is necessary, especially in the early part of the season. The cutter-bar should be set as high as possible so as to miss the alfalfa.

Alfalfa can be sown in July, or the beginning of August, with good success, in which case the weeds will not interfere seriously with the crop. C. C. Georgeson.

[For seed rates on the above clovers, see page 124.—Ed]

⁂

Sweet Clover—Is It a Noxious Weed?

BY C. P. DADANT.

I have just noticed the discussion in regard to this plant in the Report of the proceedings of the Illinois State Convention at Chicago. I am somewhat interested in the discussion that may follow, because I have always taken the part of this plant, and have strongly recommended it, lately, in an article which I wrote for the Prairie Farmer, and yet, when I wrote the article, I did not know that there was some public mention of the matter.

Is melilotus alba a noxious weed? If it is, we have been guilty—my father and myself—of introducing a nuisance in our neighborhood. Melilot was brought to our country years before we came here, in the '50's. It was sowed near the Mississippi river, close to a mill-dam built on the rapids by the Mormons. Perhaps it had even been brought there by them. My father, who is somewhat of a botanist, recognized the plant at once from the descriptions given in French works, and knowing that it was a good honey-plant, set to work to gather its seeds. After sowing a small patch on our own farm, and finding that it was a valuable acquisition for the bee-keeper, he began sowing it in waste-places, in old quarries, along the creeks and along the river's edge. Mind, this was in the '60's, when land was cheap, farms were far apart, and cattle ranged at large over the commons. The result was that the melilot did not spread, but was kept down by the stock and never made much headway except on farms that were fenced up, in places where nothing was grown. There are patches of it yet, on two or three neighbors' land, in spots unfit for anything but pasture, but which find themselves, owing to the cultivation of crops within enclosure so as to be safe from the cattle's reach.

We have a friend in the city of Keokuk, four miles from here, who undertook bee-keeping on a small scale, I believe in 1868. He lives on the bluff, in a curve of the river, and in a spot that was totally devoid of pasture, except the few fruit trees and patches of lawn common in a city. The only great pasture in reach was on the bottom lands across the river, a mile wide. My father then urged him to sow sweet clover about the bluff on which he lives, which is about 200 feet high and so steep that no house may be built on its slope. The melilot grew there in abundance and spread far and wide, for there was no stock in reach of it. It has now spread about and grows along the railroad tracks, and in deserted street corners, so much so that it makes quite an item for a honey crop.

Now, if this is a noxious weed, and our friend, in following our advice, has committed a nuisance, let those who say it is a nuisance rise and tell us what constitutes a nuisance. Do they mean to say that in those waste-places where this plant grows, nothing else would grow? About the railroad tracks for instance, where it is probably most objectionable, will you say that if it was not for the sweet clover, the railroad companies would not have to mow and clear up the side of the track? I have traveled in many directions and have always seen many tall weeds, in all productive soil, along the railroad tracks, even where there was not and had never been any sweet clover. If it is a necessity for the railroad companies to cut down weeds, what does it matter to them whether it is melilot or rag-weeds? The melilot is neither larger nor tougher than the rag-weed, and it is of some use to somebody, while the rag-weed is good only, as far as man knows, to cause hay-fever in people who have a tendency to asthma, by the profuse, rank pollen that it produces, and which is so plentiful that it covers the water of ponds with a yellow veil, and covers your clothes with a *powdered, mustard-looking dust*, during hay-fever time, from July to September.

Then, if some weed *must* grow, on our rich Illinois soil, (and thank Nature that it is so, for if it would not grow weeds, it would not grow corn and wheat)—if we must have some weed, I say, why not have a weed that is good for somebody, instead of a weed that is injurious to some and good for no one?

What harm does the melilot do to you, Mr. Lawmaker? Did it ever grow up in your corn-field, or in your potato-patch, and take away a shade of a shadow of nutriment that properly belonged to your tilled crop? No, for it is a biennial, and if you failed to turn it over last year, you surely must have plowed it up this spring when you put in your crop. And in the place where you had found it, you may notice that the corn is stronger, just as if you had had a crop of red clover in that spot, for the roots of melilot sink deep in the soil and bring more from the atmosphere than they take from the land.

Where, then, does the melilot hurt you? In the pasture? If you have had any in your pasture, you know that the first year's growth cannot stand the close grazing of the cows, and that it is only if it has stood one season sheltered from stock that it may withstand the teeth of the stock and live a stunted life, covered with bloom, however, in your pasture, until it dies the following winter. Sweet clover cannot stand regular pasturage, followed for three years or more in one spot; we have had evidence of this, right at home, for years.

Melilot may be made a useful plant. Mr. Chas. Peloquin, of Canada, a dairyman, has for years grown it for early pasture. He finds that the second year's growth begins very early in the season, and that if the clover is cut when about knee high, it is very good feed for milch cows. He therefore cuts it in the beginning of May, when there is practically nothing as yet, in the way of green pasture, in the Province of Quebec, and harvests a paying crop in this way, before it blooms and gives his bees another paying crop.

Why is it, then, that they are trying to pass, or are passing, laws prohibiting the sowing of melilot? Because bee-keepers do not keep awake to their own interests. Our law-makers, I am sorry to notice, are not farmers, but lawyers, and they are easily influenced in matters like this, and there are always some persons, (scarce though they may be) who are jealous of anything that may help the success of others.

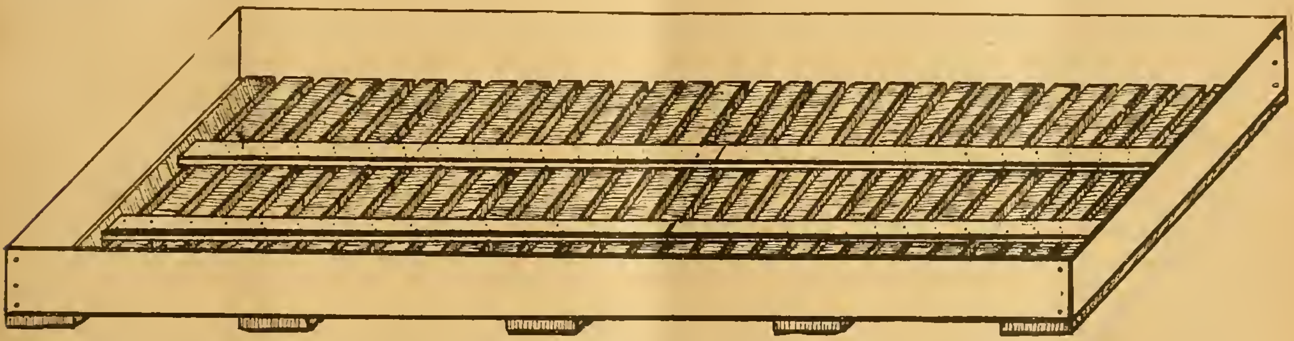
Hancock Co., Ill.

Watering Bees—A Trough for the Purpose.

BY JOHN G. COREY.

This subject having been so fully discust at the late annual meeting of the North American Bee-Keepers' Association held at Lincoln, Nebr., it would appear useless to many to add anything of value to our fraternity. Bee-keepers, as a rule, exhaust a subject pretty effectually before dropping it. (See articles on size of hives, for example.)

On the Pacific Coast we have very different conditions from those existing elsewhere. The air becomes very dry at times, and an apiary of 200 to 300 colonies requires so much water that a resort to something of greater capacity than fruit bottles is deemed advisable. I am a strong advocate of water close at hand, for many reasons, a few of which I will state:



Corey's Watering Trough for Bees.

1st. A long flight by bees for water is very destructive to bee-life, as a change in temperature of a few degrees, when a bee is filled with cold water, is sure death.

2nd. The question of transportation comes in as a strong argument, as a great quantity of water is used during the breeding season, and, in fact, during the whole of the dry, warm weather up to October in this State, and the furnishing this supply from a long distance is a heavy draft on the working-force of the apiary.

My apiary in the Solidad Canyon being located nearly a mile from permanent water, I used a well for my supply, and when a sufficient quantity was not furnisht, my bees would go down 30 feet into this well and drown by thousands. To remedy this, I provided a cover for the well, of wire cloth, and set myself to work devising a scheme to furnish an ample supply, which I did in the following manner:

I built a cheap wind-mill, and fitted up a pump composed of a cylinder 2-inches in diameter, and 35 feet of 1¼-inch iron pipe, the whole costing me $14. Then I prepared a watering-trough costing $4 more, besides my own labor. The trough is made of a sheet of No. 22 galvanized iron, 36x84 inches, and is made in the form of a large dripping-pan, with sides and ends 5 inches high and perpendicular. The sides and ends were stiffened with 1x4 inch lumber, and five pieces of the same material nailed across the bottom to hold it level when filled. The sides and ends of the iron were then bent over the wood rim and nailed firmly with 1-inch wire nails. A float in two sections was then made of lath, fitting at the sides and ends so exact that a bee could not pass under it.

This trough was then placed in a sunny place well protected from wind; a pipe was then laid connecting the pump with the watering-trough, and the mill was run an hour or so every day, which not only filled the trough, but overflowed quite a piece of ground around it. The amount of water used varied, I found from observations taken daily, and was governed by atmospheric conditions, and ranged from 5 gallons to 25 daily. The capacity of the trough was fully 30 gallons, and it would be found empty before noon in cases where the wind failed to run the mill the day before.

This entire outfit cost me less than $20 outlay, and has been of more service to me, and more satisfactory, than any other appliance used in and about my apiary. Although a plain and not ornamental improvement, it fills the bill. The tower is a piece of 12x12 bridge-timber picked up in the river. The windmill shaft is a reaper shaft and crank that cost me $1. The fans, four in number, are made of ½-inch lumber, and a cross-head is spiked firmly to the tower, and the boxes are wood, but kept well oiled. The mill is rigged so that when the wind blows up the valley it runs one way, and when it comes down the valley it runs the other way. The sketch of the trough herewith was made by a friend to illustrate more fully the manner of its construction.

Los Angeles Co., Cal.

Important Foul Brood Questions Answered.

BY WM. M'EVOY.

The following questions on foul brood, received from J. H., of Iowa, I will attempt to answer:

"I have read Dr. Howard's book on 'Foul Brood,' and think I know a little more than I did before reading it, but I want some information that I think such a book ought to contain. Hence, I ask these questions:

"1. (*a*) Is all the honey in an infected hive infected? (*b*) Suppose the disease is in the center of the brood-nest, is the honey in the outside frames, and in the sections above, infected, or just the honey close to where the dead brood is?

"2. In the first stages of the disease, is the honey in sections or extracting-frames where there is no brood, considered unhealthy and not fit for table use?

"3. Does a colony ever do enough good after it is infected to store any surplus?

"4. Does Dr. Howard claim that the spores that are infectious are confined to the honey and pollen? Or does the comb contain them? I mean comb where there has never been any dead foul brood?

"5. Will combs taken from the top story and extracted last fall, put back for the bees to clean off, then taken out and packt until spring out-doors, contain the disease?

"6. Is it possible for the disease to be carried by new foundation?

"7. The Doctor gives treatment for *during the honey-flow*. I would like to have it for winter or early spring.—J. H., Iowa."

ANSWERS.—1. (*a*) No. If all the honey in foul-broody colonies was affected, all the larvæ would die of foul brood just as soon as any of the honey was fed to them. (*b*) Yes, and sometimes pretty badly affected. Honey and pollen to become diseased must be stored in cells where foul-brood matter has dried down, and when the bees, in making more room for brood in times of honey-flows, remove the unsealed honey out of the diseased cells to cells partly filled with good honey in the supers above or in any part of the brood-chamber, it will become diseased at once.

2. As a rule, where a colony has only a few cells of foul brood, and these in the first stages of the disease, the honey

in the sections and extracting-combs will be all right for table use.

3. Where colonies have only a few cells of foul brood in the spring, and are fairly strong in bees, the disease won't make much headway for some time, and in all such cases the owners will get surplus honey in proportion to the strength of the colonies, the nature of the honey-flow, and how they manage the business. But when colonies rob *very foul-broody ones* in spring, they will store the diseased honey right in the brood-nest and feed it to the larvæ as long as it lasts; then the disease will make rapid progress, and, by the time the honey-flow begins, the colonies will be so weak in bees that little or no surplus honey will be gathered.

4. No. Not in the honey and pollen alone, but in cells in combs where foul-brood matter had dried down. Every cell in a diseased comb that has no honey, pollen, or the stain-mark of foul brood left in it, will be all right. Combs that *never had any brood in*, and have been used above the queen-excluder on diseased colonies will be all right after they have been extracted, and given back to the bees until they are thoroughly cleaned.

5. Yes, they certainly will, and for many years after, if they have cells in them that foul-brood matter dried down in. Many a fine apiary has been ruined through bee-keepers buying and using old combs that others had on hand after they lost all of their bees. The amount of damage that has been done through the mistakes that people have made in using old comb that they did not know to be diseased when they first used them, would amount to a serious sum. I never could have made a success of getting the diseased apiaries cured by wholesale in the Province of Ontario, if I had not made it a rule to get all the combs in every badly-diseased apiary made into wax.

6. Never. No bee-keeper in the world ever had foul brood introduced into his apiary through using foundation. Mr. F. C. Harrison, Bacteriologist at the Ontario Agricultural College, at Guelph, put a quantity of foul-brood germs into melted wax *after the wax had cooled down considerable.* Mr. Holtermann then made it into foundation, and put a swarm into a hive filled with it. Before the test was made I said to Mr. Holtermann, and Mr. Craig, that it was my opinion that no disease would be found after the foundation was made into combs and filled with brood. Sometime after, when the combs were full of brood, I was askt to inspect them, which I did. A more healthy or nicer-looking lot of brood I never examined, than I found in these combs made out of foundation loaded with foul-brood germs. Mr. Holtermann made this severe test during the honey-flow, and out of *soft* wax so as to get the foundation made into combs as soon as possible.

7. To cure colonies of foul brood in winter, in cold regions, is a thing that I never advised any person to do, and do not approve of disturbing bees in their season of rest. But if any bee-keeper wishes to cure his diseased colonies in winter, and has, or can get, the right sort of combs, it can be done as follows:

Remove *all* of the combs out of the foul-broody colonies, and then shake the bees back into their own hives; then in each hive place five combs of honey that is *sealed right down to the bottom-bar, that you know to be free from the disease*, and then with division-boards crowd the bees up so that they will cluster up in the comb. If the diseased colonies are pretty weak, put two or more of them together before crowding the bees up into the five combs of *sealed* honey. With no place in the sealed combs for the bees to store the diseased honey (which they would take with them from the old combs), they would have to keep it until they consume it, and after that the bees would have to uncap the sealed honey and use it up before they could have any space rid out for brood-rearing. This method gets rid of the diseased honey before brood-rearing is started, and always ends in perfect cures, when *suitable* combs of sealed honey are used.

Early spring would be the most critical time in all the year to undertake the curing of foul-broody apiaries, and with the *most* of the bee-keepers it would end in failures, losses, and a wide-spread of the disease if such work was undertaken in *early* spring. Foul-broody colonies that are weak in bees in *early* spring are very dangerous things to keep in any locality where many colonies are kept, because they always get robbed out just as soon as robbing sets in, and in this way the disease is often very widely spread. To guard against this, and make it safe for yourself and your neighbors, in *early* spring double up all the diseased colonies, *in the evenings*, that are weak, until they are strong in bees; then contract the entrance to prevent robbing, and wait until the honey-flow begins, then go in for curing, which can be easily and profitably done by every one.

This Iowa bee-keeper has raised some very important questions, and I believe that Dr. Howard will agree with all the answers that I have given. Dr. Howard's book on "Foul Brood" is by far the best of any ever publisht on this subject, and every bee-keeper in the world should have one.

Ontario, Canada, Feb. 8.

[We mail Dr. Howard's book on "Foul Brood" for 25 cents; or club it with the Bee Journal for a year—both for $1.10.—EDITOR.]

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Moving Bees from Indiana to Florida.

BY A. F. BROWN.

Replying to Mr. Stokesberry's inquiry, on page 28, regarding moving bees to Florida, cost of bees here, etc., I would say: It will probably cost $100 or $125 as a special rate on a carload of bees from Indiana to Florida. The railroad transportation company will not take less than a carload, and the carload rate would include one man in charge *free*. About 200 colonies in 2-story single-walled hives make a good carload. If the bees are properly packt, with ample ventilation, they can be shipt very successfully, especially in early spring or in the fall.

If you have a carload and cannot sell them at home at a satisfactory figure, and you are fully determined to follow the business here in Florida, you might ship them to an advantage to yourself financially.

The cost of bees here will vary from $3 to $5 per colony, for those in frame hives, and $1.50 to $2 for colonies in box-hives. Unless one is informed, or has done considerable inquiring around, it might take him some little time to get up a good-sized apiary—say a couple hundred colonies. For those who do not make much out of their bees, seldom have more than a dozen or two colonies, and those who do make a business of it, don't want to sell unless at good figures.

About the cheapest and most satisfactory way to get started with an apiary is to buy 50 or 100 colonies in box-hives, and transfer, putting into "new hives." This gives one the advantage of having the most improved hives, and having just what he wants, which is seldom found where an entire apiary is bought outright.

Again, one leaving the North seldom knows until he has been on the ground to see the country and location, whether or not he is going to like it. Therefore, I would advise selling out and making a fresh start after you have found what you want. Or, still better, wait and see the country first, then decide for yourself whether or not you want to make a change. Like all other places, Florida has its drawbacks and failures.

A word or two regarding packing bees for shipment: If you move during warm weather, you should have a rim the full size of the hive and 3 inches deep, covered with wire cloth—one on both top and bottom. This will give the bees a chance and ample room to cluster off from the combs. In cool weather, when you have frosty nights and mornings, one-3-inch depth screen on top will be enough, *but in warm weather put a screen on both top and bottom.* The frames should be securely fastened so that no amount of jarring can get them loose, and allow them to jam together, or swing back and forth, as this is a death-trap to about every bee in the hive. Colonies heavy in honey are liable to have it broken down in the jarring that is bound to come from moving by railroad; therefore, do not allow over 15 to 20 pounds—at most 25 pounds—to the colony.

It is also very essential to have all colonies supplied with some water. In fact, this is *most important* in warm weather, and where there is any unsealed brood in the colonies. The best way I found to supply it is in combs, filled by laying each comb in a tub or barrel and pouring water from a dipper held three feet above it; the force of the fall drives it into the cells, and it stays; reverse the comb and fill both sides. One comb will hold about one pint, or a little more, and two combs should be given to each colony to insure ample.

In packing colonies in a car, load so the combs will run lengthwise of the car, and so there will be a circulation of air all among and through them. This can be secured by means of a few 1x2 inch strips laid between the tiers of hives as one is loading. Lay a few strips on the bottom of the car first, to allow ventilation under the first tier of hives.

In moving in warm weather, get a *cattle-car*. These, owing to being built open, give the best kind of ventilation when the train is in motion.

When figuring the expense of moving one's apiary South, or to any other place, unless one intends following the migratory system, he should figure in the cost of screens, as they are no small item for a carload of bees. Volusia Co., Fla.

CONVENTION PROCEEDINGS

Report of the Michigan State Bee-Keepers' Convention, Held at Mt. Pleasant.

BY W. Z. HUTCHINSON.

[Continued from page 102.]

The Secretary then read a paper from M. H. Hunt, of Wayne Co., on

MAKING AND SHIPPING BEESWAX.

Perhaps no one is a better judge of beeswax than the manufacturer of comb foundation. He learns the appearance it should have, the touch, and even the smell, as readily as he does the aroma of his morning coffee.

Many have tried adulterating, and with success so far as selling is concerned, until he tries the foundation maker. Many dollars have been wasted to find a substitute for beeswax, but all have failed—it's no good for the bee-keeper.

The quality of the beeswax of this country has been much improved in the last five years—it is much brighter and cleaner. The sun wax extractor has had something to do with it, also steam rendering. In an experiment a number of years ago, I found that the soaking of dark comb in several waters removed much of the coloring matter, which improved the wax very much. Some of the combs were put in whole to soak, and were so improved that they were taken out and used again. By drying them thoroughly much of the old pollen will rattle out.

Never use an iron dish about the wax, even if galvanized. We always make up our wax by steam. The combs are put into a large sack of loose material, and put into a barrel and covered with water; as the melted wax comes to the top it is skimmed off. The addition of two ounces of sulphuric acid will add much to the color and cleanliness of the product. Turning and poking the sack will help to get the wax out more thoroughly.

Avoid melting the wax over too many times; every time makes it darker colored. Make the cakes medium-sized, and don't pour in the moulds until cooled so it will just run nicely. Wet the dish, and you will not have to grease it, which is objectionable. If the above directions are followed, your cakes will not crack.

Our apiarist has always saved every particle of comb and prest them into little, hard balls, and no worms have ever been found in them; these savings are made up twice a year.

In preparing your wax for shipping, much care should be used, especially if sent by freight, which is usually the best way. The box it is put in should be strong and well nailed. See to it that there are no holes that the pieces knockt off in transit will rattle out. Fasten the cakes so they will not shake about in the box. Never put any packing in with it, such as excelsior, paper or straw. The last thing before nailing up, put in a card with the exact weight of the wax, together with your address.

If you follow the above directions, and make no mistake in the weighing, there will be no shortage, and your buyer will be made happy. Reporting a shortage is not a pleasant thing to do. M. H. HUNT.

Jas. Armstrong—I would like to know why we have to pay first-class freight on wax?

Mr. Hutchinson—Perhaps it is because of its value. If it is lost the railroads have to pay for it, and they make a higher rate on account of its value.

Mr. Armstrong—With that line of reasoning we ought to pay a higher freight on foundation than on wax, which is not the case.

H. W. Morrison—I have used the solar wax-extractor, and like it very well, as it is so easy to throw in any bits of comb, and they are disposed of at once.

Mr. Bingham—The trouble with the solar extractor is that it won't work Sundays. My wax extractor is very simple. I have an old wash-boiler soldered on the top of another old boiler, the bottom first having been removed from the upper boiler. This gives a very deep vessel. I put in some water, and then some cappings. When they are melted I put in some more, and keep doing this until they are all melted, or the boiler is nearly full. Then I put in some water and bring it up to the boiling point, and leave the fire to go down, with the boiler on the stove. I leave it until the next day to cool, and then take it out in the yard and turn it over and get out the cake of wax. As the wax shrinks in cooling there is no trouble in getting out the wax, and it is all in one piece. There is no useless dipping and fussing, and you get all of the wax. The law of gravity does it all. The dirt settles to the bottom. Any dirt attacht to the bottom of the cake can be scraped off with a knife or axe, or something. There is no use of putting the combs into a sack.

Pres. Aspinwall—There is one point in favor of the solar extractor, and that is, the heat is never great enough to melt the propolis, and thus have it mixt with the wax.

Mr. Bingham—I don't think that the propolis mixes with wax; I think that the specific gravity is different.

BEES IN HONEY-HOUSES.

Mr. Bingham cautioned all to be careful and not let any bees, loaded with honey, escape from the honey-house window, or the door, as they are sure to come back and try to get in again at the same place. Fix a movable screen inside the window, that can be removed and carried out-of-doors with the bees still upon it, and thus release them some distance from the house. Or, he would have a box at the top of the window into which the bees would crawl. He would have a glass on the outside of the box. This box could be carried out and opened, and the bees allowed to obtain their liberty by flying from the box instead of from the house.

BEE-VEILS AND CROSS BEES.

Mr. Bingham also cautioned bee-keepers against wearing stiff or hard veils, like the bar-veil that has been advertised. When a bee flies against such a hard substance she thinks that some one has struck her, and she gets mad about it and stays mad for a long time. She is ready to fight the moment any one comes into the yard. Use soft material for veils. It often happens that there are only a few bees in the yard that cause most of the unpleasantness, and it may be worth while to get rid of these. Mr. Bingham provokes such bees by striking at them, and then backing up into the honey-house, continuing his blows, and when they have followed him in, he closes the door and kills them. He thinks that not more than 50 bees may cause annoyance for a long time, and that if they were killed off, peace would reign.

The following officers were chosen: President, T. F. Bingham, of Farwell; Vice-President, Wm. Bamber, of Mt. Pleasant; Secretary, W. Z. Hutchinson, of Flint; Treasurer, H. W. Morrison, of Mt. Pleasant.

It was thought that while Mt. Pleasant was an excellent place in which to hold a convention and secure a crowd, the weather had been such that a very poor showing had been made, compared to what could be made in good weather, and it was decided to hold the meeting there another year.

W. Z. HUTCHINSON, *Sec.*

The Alsike Clover Leaflet consists of 2 pages, with illustrations, showing the value of Alsike clover, and telling how to grow it. This Leaflet is just the thing to hand to every farmer in your neighborhood. Send to the Bee Journal office for a quantity of them, and see that they are distributed where they will do the most good. Prices, postpaid, are as follows: 50 for 20 cents; 100 for 35 cents; or 200 for 60 cents.

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The Names and Addresses of all your bee-friends, who are not now taking the Bee Journal, are wanted at this office. Send them in, please, when sample copies will be mailed to them. Then you can secure their subscriptions, and earn some of the premiums we have offered. The next few months will be just the time to easily get new subscribers. Try it earnestly, at least.

◆

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

◆

☞ See "Bee-Keeper's Guide" offer on page 109

Questions AND Answers

CONDUCTED BY
DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

What to Do with Sour Honey.

On page 88 the question is askt what to do with that sour honey. "Heating it to a certain degree," as the word heating is usually understood, will simply ruin it. If it can be kept *warmed* for a few weeks at 100° to 120°, that may improve its flavor, and if conditions are favorable for evaporation it will certainly improve its consistency, for sour honey means thin honey. It may, and it may not, be an easy thing to keep it properly warmed for a sufficient length of time, and another plan may be taken, providing the honey has granulated with coarse grains. Drain off the liquid part and use it for vinegar, then melt up the grains. If it's in barrels it can be drained by allowing the barrel to be turned on its side, or by having a hole at the lower part. My good friend, T. F. Bingham, protests against such advice, as reported on page 85, and it may be well to advise against having honey that by any possibility can be drained, but the fact remains that there are tons upon tons of such honey, and it isn't a bad thing to know what to do with it. C. C. M.

Leveling Comb in Sections—Moving Bees.

1. I have a lot of sections, that I extracted in the fall and left the bees to clean them up. I read a good deal about leveling the comb. You talk about B. Taylor's comb-leveler. How would you do it, without the leveler? I don't care to have the work done in one day, for I have time to do it, if there is any other successful way to do it.

2. Have you any idea how you would manage to move about 30 colonies of bees and fixtures, household furniture, horses, etc., 150 miles by freight? and at what time of the year? Just three weeks before last Christmas, I was on a freight-car loaded with household furniture, horse and buggy, dog and chickens; traveled one night and part of the next forenoon. I couldn't see how to fix the bees to move, where there was a bumping and swearing like those railroad men had. The train stopt one hour at a station where a lot of coal miners were traveling. Early in the morning, the horse was scraping, the dog barking, and the rooster crowing—surely some people must have thought it was some kind of a circus. It is owing to how bees could be loaded, to have all on one car. I have learned that a car will hold twice as much as I would have thought at first. There was plenty of swinging up and down when in full speed. E. B. K.

ANSWERS.—1. It seems almost as though leveling combs in sections was being pusht just a little too hard sometimes. Some talk as though the object of leveling was nothing more and nothing less than to reduce the depth of the comb. I don't believe in that. Combs from unfinisht sections are sometimes built out in such a way that when put in a new place some part will come nearer to the separator than the space of ¼ inch, and in that case the comb will be built fast to the separator. If no separators are used, there is danger of combs being built together, making the matter even worse than where separators are present. So it is desirable to cut down the comb sufficiently to avoid the trouble indicated.

Again, it happens only too often that when sections are left on after the honey-flow ceases, the outer edges of the cells will be travel-stained, and sometimes badly varnisht with propolis. This should be cut away. One way to accomplish the work is to take a thin-bladed knife and bend the blade at right angles or nearly so, having the part beyond the bend 3 inches long or more. Heat your knife blade in hot water or over a lamp and shave away the desired amount. But if you have a hundred sections or more to trim, it may be well to get Taylor's leveler, which is not expensive, as the work is done so quickly and easily by its aid.

2. I think I'd prefer to ship the bees at a time when the thermometer indicated lower than 32° and not higher than 55°. Colder and warmer might do, but if colder there is more danger of breaking combs that are brittle with the cold, and if warmer there is more danger of the bees worrying themselves to death or suffocating.

The combs should be parallel with the rails of the track. I'd try to load the bees so they would be practically in a car by themselves, by fencing them off from the possibility of other goods being jammed into them. Cleats can be nailed on each side of the car, and a fence built across by nailing fence-boards on the cleats. If thought necessary, boards can be nailed inside this fence to stay it, not having the staying boards with the edges up and down as in a fence, but flatwise. If there is room enough so that one hive does not need to rest on another, then it will be an easy thing to fasten each hive in place by nailing strips on the floor around each hive. If strips an inch high are nailed into the floor around a hive, it will not jump out of its place. If one hive is to be placed on another, then you must plan according to circumstances. In most cases you can hold the upper hives firmly in place by means of fence-boards across the car. Horizontal cleats must be nailed on the sides of the car for the boards to rest on, then cleats nailed on above the boards so they can't get up or down, then cleats nailed against the edge of the board—not driving the nails, of course, into the board, but into the side of the car—so that the hives will be held solid in their places. Use plenty of boards and nails, so that the hives will be about as solid as if built into the car.

Bees Affected with the Diarrhea.

Some of my bees have a sort of diarrhea, which makes the hives smell bad. What can I do for it?
P. A. B., Defiance, Ohio, Feb. 8.

ANSWER.—If outdoors, they will probably get over it the first fine day they can fly, and perhaps there is nothing for you to do beyond seeing that the entrance is fully open to admit plenty of fresh air. If clogged with dead bees, clear it out, and clean the dead bees off the floor-board. If the bees are in the cellar, use the same precautions, and in addition see that the air in the cellar is pure. Open it fully at any time when you can do so at night without reducing the temperature of the cellar below 40° to 45°; 45° is generally counted the best temperature in the cellar, but it is better to have it at 40° with pure air than foul air at 45°. In the cellar there's no danger of strong winds chilling the bees, so you cannot have the bottom of the hive too open. Open it up all you can, even to taking away entirely the floor-board and letting the hive rest on its two edges.

Giving Other Honey a Basswood Flavor.

If your bees did not have access to basswood, but had a steady pasturage from miscellaneous wild flowers, sweet clover and mustard, would it not be easy to change the flavor of your extracted honey by mixing in a little basswood honey after extraction? E. W.

ANSWER.—That depends entirely on the kind of honey. Probably in the case you mention the flavor would be so pronounced as to be not easily affected by the flavor of basswood

Don't Try to Feed Glucose—Standard Hive.

I am a beginner in the bee-business, having bought 4 colonies about two years ago. I now have 45 colonies. In all I have taken about 1,100 pounds of comb honey the past season. The main feed here for bees is alfalfa, which is plenty. It makes very white honey. There is some heart's-ease. I left my bees on the summer stands with packing in the supers. I want to know something more about yellow clover. People here are down on sweet clover.

1. Is glucose fit to feed bees in the fall or spring? If so, where can it be had, and what grade is the best? Don't think that I want to adulterate the honey, for I don't believe in adulterating anything. The reason I ask is, it is very warm for the time of year, and last fall the bees had plenty of winter stores, but the weather being so warm they are flying every day, and I fear they will run short of feed.

2. What is the standard hive? I have the dovetail, 8 and 10 frame. Is there any better kind?
D. J. M., Harlan Co., Nebr., Jan. 20.

ANSWERS.—1. It is now generally considered that glucose is not a fit food for bees at any time.

2. In this country no formal action has been taken as has been the case in some other countries to have a standard hive adopted. Or, rather, it is a standard frame that has been adopted in England and in parts of Europe. One reason why it is difficult, is that the immense area included in the United States makes the climate and temperature differ more than the difference between the climates of two separate nations in Europe. Considering from the standpoint of what is most popular and most used, it may be pretty safe to say that the standard frame in this country is one 17⅝x9⅛ inches, outside measure. As to hives, there are probably more 8-frame dovetail hives made at the present time than of any other.

The Comb-Leveler and Its Use.

Can you give me some idea as to what Mr. B. Taylor's comb-leveler is like? and at the same time inform me why combs in extracted sections need to be leveled at all? Why not return them to the supers in the shape in which they leave the extractor? Won't the bees do the requisite leveling?

S. A.

Answer.—The comb-leveler looks something like a tin box not so very far from the size and shape of a pound section. It is placed over a lamp, then when a section is placed over it the heat melts down the comb until a gauge set at the proper place prevents the wood of the section from going any lower. The melted wax runs off into a dish which is part and parcel of the leveler. The essential principle is a hot level surface to melt the comb, and some provision to catch the melted wax.

In the reply to another question you will see the reasons given for leveling. Decidedly the bees will *not* cut down the comb where it comes too close to the separator or to another comb, but will promptly build the comb to the adjoining surface. Neither will they clean off the edges of the comb if they be daubed with bee-glue. And very decidedly it will not do to "return the sections to the super in the shape in which they leave the extractor," unless there's something in your climate that prevents the small amount of honey left in the combs from granulating. They must be cleaned out *by the bees*. However, you probably did not refer to this part. To answer fully the spirit of your question, if the combs are perfectly clean, and so built that a space of ¼ inch will be left between the comb and the nearest surface, I do not believe there is any good reason for leveling the comb.

Questions on Contraction, Swarming, Etc.

1. In running exclusively for comb honey in one-pound sections in 8-frame dovetailed hives, would you advise contracting the brood-chamber? If so, how much, and when?

2. Will not contraction encourage swarming? If so, how is the best way to prevent it as much as possible, when no increase of colonies is desired, and at the same time not interfere with honey-gathering?

3. In hiving swarms on the old stand, where no increase of colonies is desired, will it do just as well to hive them on *starters* of foundation as on full sheets?

4. How is the best way to get all the bees out of the parent colony into the swarm hived on the old stand? I do not care to keep the old colony.

5. Would you advise taking the super off the parent colony and placing it on the hive containing the swarm as soon as the swarm is hived? If so, is there not danger of the queen going into the super?

6. Would it be necessary for me to get queen-excluding honey-boards? I have none, and I would like to get along without them?

J. S. F.

Answers.—1. No, I wouldn't contract to less than 8 frames. But I would let the bees have a second story before the harvest, giving it as soon as, or before, they fill the one story. Just what is the best thing to do after that I'm not entirely sure, but in most cases, so far, I've taken away one story when the honey-flow begins.

2. Yes, when you lessen the brood-nest you are doing something to promote swarming. I don't know how to prevent it, but the plan outlined in the previous answer seems to work pretty well if supers are put on a little in advance of the honey-flow.

3. No; because in that case you'll be pretty sure to get too much drone-comb built.

4. That's easy as rolling off a log. Just lift out the frames one by one, and brush off every last bee. Just as like as not you may now feel like asking what you are to do with the frames of brood after brushing off the bees. If you have no need of them to strengthen up weak colonies, pile them up four or five stories high over some colony. Such a colony will not give you a good yield of section honey, but it will give you a lot of brood-combs filled with honey. You can extract the honey, but you'll find a lot of such combs on hand the next spring to be good capital.

5. No, if you don't use excluders don't put the supers on the swarm for a day or two, so the queen can get started to laying in the brood-chamber.

6. Queen-excluders are nice things to have, but it is not necessary for you to use them to keep the queen out of supers. The past summer I had a lot of excluders lying idle; but I didn't use excluders under supers.

T Supers and Pollen.

Does not the use of T supers cause more pollen to be put in sections than by the use of section-holders? B.

Answer.—The only possible reason I can see why there should be any difference, is that with section-holders the sections are farther from the brood-nest by the thickness of the pattern slats. I never used section-holders largely, but I've produced tons of honey by means of wide frames, and so far as the bees are concerned they are the same as section-holders. If the pattern slat makes less pollen in section-holders than in T supers, then there ought to be still less in wide frames. But I never observed any difference between wide frames and T supers as to pollen. In fact, I never had much trouble with either.

Changing Bees from One Hive to Another.

I would like to know if it would work all right to remove bees in the spring from their hives into other hives? For instance, I go to No. 1 and put it just behind the stand and put a clean hive on the stand, then lift out the frames, bees and all, and place them in the same position in the clean hives as they were in the old hive; then clean out hive No. 1 and go to No 2, and repeat the operation, and so on through the yard.

D. S.

Answer.—I've done as you propose to do in hundreds of cases, and I think always with good results. Of course, you might do harm by taking a cool day for the work, so that the brood would be chilled, but it must never be done unless warm enough for bees to fly freely. Look out that you don't start robbing.

May Not be Queenless—Feeding in Winter.

1. I have my bees on the summer stands, in 8-frame Langstroth hives. Last November we had a very hard frost, such as I never knew before. At that time I found a dead queen outside of a hive. Do you think I can safely introduce a queen this month, or wait till May? or will there be a laying worker in the hive at that time?

2. Will cool sugar syrup, fed in cool weather, cause the diarrhea? Bees commenced brood-rearing two weeks ago, and are getting pollen from the willows, but a cool spell stopt brood-rearing. Yesterday the bees flew as in summer. The first honey-flow comes here from crab-apple. Red clover, Alsike and white clover grow well. I sowed a patch of sweet clover this winter, and wonder how it will do.

T. W., Lewis Co., Wash., Feb. 1.

Answers.—1. Don't be in too much of a hurry about that colony in front of which you found the dead queen. It is quite possible that they have a good queen now. The dead queen may not belong to that colony, or it may be an old queen that the bees superseded. They may have reared a young queen in the fall, and may have still left the old queen, which has now died of old age. There is little danger of laying-workers until much later in the season. Even if you know they're queenless for a dead certainty, let them alone till bees begin their spring flights. After the weather gets warm enough so bees fly every few days, you can decide whether they are queenless, by looking to see whether they have any brood.

2. Yes, feeding syrup in cold weather is not desirable. If it seems to be a necessity at any time, give syrup hot. Always try to have on hand enough extra brood-combs of sealed honey to meet any emergency.

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Editorial Comments.

Putting Honey into Comb.—Messrs. Van Deusen & Son, the manufacturers of flat-bottom comb foundation, received the following letter, asking about putting Southern honey into comb:

BALTIMORE, Feb. 4, 1897.
MESSRS. VAN DEUSEN & SON—

Gentlemen:—Please send us a sample of your honey-comb foundation. We get considerable barrel honey from the South, and if there is any way to put it in comb, we could make much more out of it. Also state if you have a preparation for capping the same.

Yours truly,
THE M. P. CO.

The receivers of the above ask: "Is it a branch of Horrie & Co.?" We must confess that it has such appearance. It reminds us of a fellow here in Chicago, a few years ago, who came into our office and said that he was studying on the question of making comb honey without the aid of bees. He told us he'd háve a grand good thing if he could only succeed in making the comb and capping it over. But there was the trouble. Of course he failed at that, as he deserved, but it didn't prevent him going right into the criminal business of adulterating extracted honey and selling it for the pure article. But even at that he is not getting rich very fast, for we learn that the stores which have been selling his "pure extracted honey," are refusing to longer handle the miserable stuff, and are beginning to sell the real thing. And we are not too modest to say that we had a big hand in getting those dealers to quit imposing upon their customers, and to sell *pure* honey.

Oh, if we only had a good anti-adulteration law here, how we'd like to help make Chicago honey adulterators hop! No trouble to get plenty of evidence, and it would be easy to locate and capture the rascals.

◆

Organizing a Bee-Society.—We have received the following from a subscriber in Florida:

FRIEND YORK:—I read the American Bee Journal with much interest every week. There are 19 people here trying to keep bees, and I have tried to get them to subscribe for some bee-paper, but I can't do it—they know more than the bee-papers. Florida bee-keepers are not organized—have no protection from foul brood or adulteration of honey. (I know one merchant here who has been guilty of this fraud.) If the people here would only unite, we could work against such to a degree. This party would buy "chunk honey," make sugar syrup and pour it on the combs in jelly glasses, and tell his customers, "*That is the way the bees made it in the glasses!*"

I wish to help organize Florida bee-keepers to get a law to punish adulterators, and a law to keep down foul brood. The natural resources here for bee-keeping are away ahead of the North, and we have no winters. My bees gather some pollen and honey every day of the year.

I would ask you to point out some method of gaining the desired legislation and organization. I have the promist co-operation of a prominent bee-keeper in this matter.

SUBSCRIBER.

We are not sure that we can aid our correspondent very much in what he asks, at least we can't do any more than to tell what others have done to secure the objects he desires.

To organize a new bee-society requires some work on the part of the prime movers. "Subscriber" can perhaps enlist one or two other bee-keepers to aid him, and write a personal letter to all the surrounding bee-beepers he knows, calling a meeting on a specified date, and at a certain place. Then those who assemble can organize themselves into a society in the usual way. They can also discuss various matters of interest, and try to enthuse all present in such a way as to start them out to work to build up the society. Another meeting can be arranged for, and in the meantime continue to write letters to all the bee-keepers you can learn of in your State, urging attendance at the next meeting.

The first move against foul brood and adulteration is the drafting of Bills by the new society, to be presented before the State legislature for enactment into law. The very best representative the society has should be sent to the capital to go before the committees to whom the Bills will be referred, for the purpose of answering questions and urging the committees to report favorably upon their passage. The best work is needed in the committee meetings.

Specimen Bills have often been given in these columns, which can doubtless be used with slight alterations.

◆

Treating Soured Honey.—In the book, "Langstroth Revised," by Dadant, we find the following concerning the treatment of soured or fermented honey:

"If any honey should ferment, let no one think that it is spoilt, unless it was really unripe and has turned quite sour. A slight amount of alcoholic ferment can be evaporated readily by melting the honey over water, when the ferment escapes in the shape of *foam*. As this fermentation is caused by the presence of unripe honey, some of our friends succeed in entirely preventing it by melting all their honey *immediately after granulation*. The melting evaporates all excess of moisture contained in it, and we highly *commend this method*."

◆

Not Down on House-Apiaries.—A Nebraska correspondent in the February Progressive Bee-Keeper writes this sentence:

"The editor of the American Bee Journal, in commenting on house-apiaries a short time since, said they are a thing wise bee-men have decided to let alone, *or to that effect*."

Now that wouldn't be so bad if only it were true. We shall have to deny "the soft impeachment" this time—at least until proof is shown that *we* said anything even "to that effect." We are not in the habit of advising for or against a thing in bee-keeping that we know nothing about personally. There are some very excellent and "wise bee-men" who strongly favor house-apiaries, and we don't question their value at all.

Perhaps the Progressive will condescend to correct its correspondent's error as to our views on house-apiaries.

◆

Planting Trees.—Hon. Eugene Secor, of Winnebago Co., Iowa, attended the January meeting of the Southern Minnesota Horticultural Society, held at Albert Lea, and read an excellent paper on "Ornamental Trees for Street and Park." The local newspaper thus epitomized it:

"This is a subject about which there may be honest differences of opinion. Our tastes and experiences differ so widely that probably few of us would select the same list of trees for ornamental planting." The speaker then went on to say that roadside planting had doubtless fallen into disfavor on account of the willow hedge which collects the snow in winter and increases the mud in early spring, but he further said: "If we are to attain to the ideal highway in no other way than by banishing all obstructions we shall be obliged to return to the primitive prairie road, when no one complained of the wind-breaks as he faced the Borean realities of a Minnesota blizzard." The speaker then maintained that it paid to plant trees not only in parks and around residences, but the country roadside as well, with these evidences of civilization.

"Did you ever hear of barbarous tribes ornamenting their trails by transplanting shade-trees?"

Mr. Secor then recommended the following varieties for streets and highways: American white elm, sugar maple and white ash. He gave many reasons why these trees were preferable to other varieties for street and highway planting. He said: "It will cost just about as much to plant a measly cottonwood, or a lousy box-elder, or a short-lived lombardy."

"Among the many hardy and beautiful trees adapted to this climate are the hackberry, honey-locust, coffee-bean, buckeye, larch, laurel leaf willow, European white and cut-leaf birch, caragana (pea-tree), etc."

Remedy for Colds.—In his translations for the Review, Mr. F. L. Thompson says:

> The editor of the Schweizeriche Bienenzeitung, recommends the following for colds settling on the chest: Boil a quart of pure spring water; add as much camomile as can be graspt in three fingers, and three teaspoonfuls of honey, and cover tight. The vessel is then to be quickly removed from the fire and set on a table at which the patient can comfortably seat himself. Throwing a woolen cloth over his head so to include the vessel, he is to remove the cover and inhale the vapors as deeply as possible through the mouth and nose, occasionally stirring the mixture until it is cold, and then retire to a warmed bed. In obstinate cases the treatment should be repeated for three evenings.

Teaching Children About Bees.—The Rural Californian says that during the recent Teachers' Institute held in Los Angeles, Calif., a very interesting lecture was given by Miss Alice J. Merritt, upon the pollination of flowers. The lecturer was evidently the friend of the honey-bee, and frequently mentioned its services as a distributor of the pollen-grains. She assured the teachers that they need have no fears to approach the bee and closely observe its work. The bee, she said, has no desire to sting at such a time—it is too busy with its daily labors.

A little more education in this line is needed, when we hope the future young fruit-growers will not be so ignorant as to banish or destroy one of his best friends—the bee.

Anti-Adulteration Law in Wisconsin.—Mr. H. C. Adams, the Dairy and Food Commissioner of Wisconsin, has publisht in a handy pamphlet all the laws of that State relating to the adulteration of various kinds of food, medicines and drinks. On the adulteration of honey, we find these paragraphs:

> Every person, company or corporation, who shall sell or offer for sale, honey, or any imitation of honey, which is adulterated with glucose, or any other substance, shall mark the package or parcel with the words "adulterated honey," as required by Sec. 1 of this Act.
>
> Any person found guilty of any violation of this Act, shall for each offense be punisht by imprisonment in the county jail not less than ten days, nor more than six months, or by a fine of not less than ten dollars, nor more than one hundred dollars, or both, in the discretion of the court.
>
> One-half of all fines imposed by the enforcement of this Act, shall be paid to the person who informs against and prosecutes such offender to conviction

Now we hope that Wisconsin bee-keepers will see to it that their law against honey-adulteration is enforced hereafter.

☞ This is a good time to work for new subscribers.

Exceptions to "ed" Changed to "t."—For the guidance of all who are with us in beginning a reform in spelling words ending in "ed," we give the following exceptions to the rule that would change the "ed" to a "t:"

Retain final ed when the e affects a preceding sound.

(1) When the preceding vowel sound is long and exprest by a single letter, as the following:

baked, not bakt, because *bakt* would naturally be pronounced like *backed*.
caked, not cakt.
craped, not crapt.
draped, not drapt.

gaped, not gapt.
chafed, not chaft.
coped, not copt.
moped, not mopt.
roped, not ropt.
hoped, not hopt.

N. B.—The e does not affect the preceding vowel sound when exprest by two or more letters, as in booked (bookt), bleached (bleacht), crouched (croucht).

(2) When a preceding c has the sound of s, as in chanced (not chanct), forced (not forct), faced (not fact), etc.

The Weekly Budget.

Rev. W. K. Marshall, D.D., of Marshall, Texas., died Jan. 6, 1897. An extended notice will be given later.

Rev. Jas G. Teter, of McMinn Co., Tenn., wrote us Jan. 23: "Bees are wintering nicely so far. I have 60 colonies, and they have a flight every week."

Mr. O. P. Hendrix, of Mississippi, wrote us Jan. 30: "I wish to express my highest appreciation of the American Bee Journal, and the stand it has taken in defense of the bee-keeping public."

Mr. B. D. Cook, of Hillsboro Co., N. H., wrote thus when renewing his subscription: "Long may the American Bee Journal live to wax war against all our foes. There are no drones in the hive from which the "Old Reliable" takes its flight."

Mr. Carson Van Blaricum, of Calhoun Co., Mich., wrote us Jan. 21:

"I find the American Bee Journal a valuable acquisition in connection with several well-known works on apiculture. That success may crown your efforts is my special wish in making a raid on unscrupulous commission houses."

Mr. A. L. Beach, of Mecklenburg Co., N. C., wrote us as follows when renewing his subscription:

"I couldn't well do without the weekly visits of the American Bee Journal. Our small share of success is mainly due to the study of the journals. Three to five per cent. of our Southern bee-keepers read—not more make a success."

Dr. O. S. Brown, of Guernsey Co., Ohio, wrote us as follows Feb. 2: "I have been all over the southern part of California, and visited many of the largest bee-ranches. I had intended spending this winter in 'The Land of Sunshine and Flowers,' but owing to sickness in my family I have been detained here. I have invested near Riverside, and expect to make my future home there. While there, I contracted the worst attack of 'bee-fever' I have ever had."

Dr. Brown doubtless knows how to cure "bee-fever" as well as the other kinds that afflict mankind. At least he has been a successful bee-keeper.

Messrs. Van Allen & Williams, of Crawford Co., Wis., write us that they have done all they could to bring about unity of action among the bee-keepers in their part of the State. Mr. Van Allen has written several articles for the local press, setting forth the importance of the bee-keeping industry, and calling special attention to the relation of bees to fruit-growing. He read a paper before their Farmers' Institute, on "Bee-Culture," which was well received. In the discussion that followed the adulteration of honey was brought up, and many went home knowing more about honey and honey-adulteration than when they came. We hope that bee-keepers everywhere will continually keep the importance of their pursuit before the people.

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THE ENCYCLOPEDIA PUBLISHING CO., 156 FIFTH AVENUE, NEW YORK, N. Y.

General Items.

Gathering Pollen.

My bees are gathering pollen and honey from the pussy willows and manzanita.

W. A. PELLEW.

Nevada Co., Cal., Feb. 12.

For Curing Sour Honey.

To take the sourness out of honey, put it on the stove and heat it hot; then put in ½ teaspoonful of soda or saleratus into each two gallons. S. WAY.

Kane Co., Ill.

Good Prospects for Next Season.

Prospects are good in this locality for a good honey year. I have lost but 6 colonies out of 150 up to the present time.

W. H. H. LAWRENCE.

Monterey Co., Cal., Feb. 7.

Best Season in 10 Years.

The past season was the best in 10 years. Increast my 75 colonies to 131, and took off 7,600 pounds of honey, 150 pounds of it being comb, and the balance extracted.

A. W. SMITH.

Sullivan Co., N. Y., Feb. 8.

Cold Weather, but Bees Alive.

I prepared 24 colonies for winter on the summer stands. We had very cold weather for some time. I lookt the other day, expecting to find the weak ones all dead, but there were live bees in every hive yet.

E. J. FUSSELMAN.

Mahoning Co., Ohio, Feb. 8.

Bees Wintered All Right.

My bees are out every day, strong and in full force. I have 35 colonies on the summer stands, and every one came through the winter all right. Long wave the American Bee Journal!

Lee Co., Ga., Feb. 10. R. P. JOHNSON.

Splendid Work—Report for 1896.

The splendid work of the American Bee Journal the past year, in exposing swindlers and adulterators, ought to bring all honest bee-men to its support. I am in favor of uniting the two Unions, and my money is ready as soon as it is accomplisht.

We have 91 colonies in the cellar, *all* in the New Heddon hive, in fine condition.

The season of 1896 was poor with us. Basswood was a failure. Honey came in slow. I increast from 63 colonies to 128, and got 4,000 pounds of honey, half extracted. D. R. VAN AMBURGH.

Benzie Co., Mich., Feb. 14.

The Season of 1896.

Bees did fairly well last year. Of the 56 colonies put into the cellar Nov. 15, 1895, I took out last spring 53 alive, lost two after they were put out, leaving 51 colonies, spring count, including three or four that were hardly worth counting. I increast to 96, and had four skip for the woods, making an even 100. I dropt back by loss of queens and robbing to 89, and put into the cellar, Nov. 17, 1896, 88, leaving one outside to winter. I secured 3,000 pounds of honey, all from white clover, linden, and buckbush. We had no fall flow here, and secured no surplus after Aug. 1.

The colony that did the best was a second swarm, hived June 4. It filled the hive and five supers of 28 sections each, every section capt and finisht completely. The net weight in supers was 125½ pounds. The poorest

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Operates two sawmills that cut, annually, eight million feet of lumber, thus securing the best lumber at the lowest price for the manufacture of

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that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polisht on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equipt with best machinery, all combine to enable this firm to furnish the

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FEED YOUR BEES

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100, 2 to 5 feet, $10. 100 Baswood Seedlings, $1. Delivered free. Other sizes just as cheap. **50 $1.00 Bargains** by mail. Millions to select from. Also **Fruit Trees, Small Fruits, Vines, etc. Liberal cash** commissions for clubs. **Illustrated catalogue free.** Good local Salesmen wanted. Address

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We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 7½ cents per pound; 2 cans in one case, 7 cents; 4 cans (2 cases) or more, 6½ cents. The Cash MUST accompany each order. **Fine Basswood** Flavor Honey at same price; also in 270-lb. barrels.

☞ A sample of either honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

Now it seems to us here is a splendid chance for any bee-keeper to supply his home demand after his own crop is all sold. Or, why not begin now to create a local honey-trade? Order one 60-pound can first, and start out among your neighbors and friends, and see what you can do. You ought to get at least 12 cents per pound in 5-pound lots, or 40 cents for 3 pounds. Some may be able to do even better than that, though we think that enough ought to be sold at these prices to make a fairly paying business out of it. Give it a good trial. Push it. It may grow into a nice winter's work for you.

GEORGE W. YORK & CO., 118 Michigan Street, CHICAGO, ILL.

colony put up no surplus, and there were three or four of them.

The four acres of crimson clover I sowed in the fall of 1895 was a total failure; there was not a dozen live plants on the whole piece last spring.

I sowed, last spring, 27 acres of Alsike clover; it caught well, and lookt nice last fall, and as it is only about 1½ miles from my bee-yard, I am expecting wonders from it next summer!

I have about 1,100 pounds of comb honey and 300 pounds of extracted yet on hand. Sales have been rather slow on account of the low prices of other produce; and I will not ship to a commission house, preferring, if I have to give it away, to give it to my neighbors, rather than to the commission-men. And, Mr. Editor, my dollar is ready as soon as the new Union is in working order, to help straighten out dishonest commission-men, and stop the sale of glucose under the name of honey.

And, say, when the law to prevent the adulteration of honey is drafted, don't you think it would be a good idea to put in a clause requiring those that use full sheets of foundation in their sections of comb honey to state the fact on each package of honey, or each shipping-case, at least? I think if they were required to do so, that within two years those that use full sheets of foundation or drawn combs in their sections would be scarce.

I furthermore believe that a great many people would buy comb honey that do not now if they did not have to chew a whole mouthful of wax to get the honey, or every time they took a taste of honey. And I even believe that it can be made to pay to breed queens from the colonies that build the tenderest comb. I find quite a difference in comb built by different colonies during the same time, and from the same honey-flow, and, so far as I can see, both under the same conditions.

S. La Mont.

Wabasha Co., Minn., Jan. 30.

[We have eaten quite a good deal of comb honey the past few years, and, from chewing it, never would have known that foundation had been used in producing it. It seems to us there is a vivid imagination somewhere when any one is annoyed by so-called "fishbone" in honey. Pure beeswax, though indigestible, is not injurious to health, we believe. No, we'd better try to stop the adulteration of extracted honey first. Comb honey can take care of itself awhile yet.—Editor.]

From an Arkansas Bee-Keeper.

At present I have 20 colonies, 8 in box-hives and 12 in frame hives without any comb-guides. They built the comb in bad shape. I use two honey-boxes on top of the hive crosswise, which I take off when full. My hives are 16 by 14, outside measure, by 16 inches deep, with 6 to 7 frames to the hive. Now I am sadly disappointed. I thought this spring I would buy good, standard hives, but alas, I am in the drouth-stricken region, and not able to buy. I am trying to make the best of it I can, as lumber does not cost me anything, as I own a half-interest in a sawmill and live in a pine-timbered country.

A. R. Yandell.

Scott Co., Ark.

The Bee Journal's Advertisers.

Editor York:—Ever since I have been a subscriber to the American Bee Journal I have never neglected to read the advertisements. I have had dealings with quite a number of the advertisers, and never had reason to complain. On the contrary, I have been so well pleased with certain dealings that I was going to write and tell you about them, but never did so because I thought you probably knew, without my telling it, that your advertisers were all right.

Last summer I bought nine queens from four different breeders, who advertised in the Bee Journal. They all came promptly, and one was received and introduced within 48 hours from the time I mailed the order. All queens were safely introduced by Dr. E. Gallup's favorite method.

Right here let me say that I think Dr. Gallup is a very interesting writer and practical apiarist. Let him write often; he will not be with us always.

I introduced one queen in an observatory hive, and watcht the proceedings. The queen was laying in 1½ hours.

Mr. T. H. Kloer, one of your advertisers, last year, sent me a colony of leather-colored Italians about June 18, which gave me 52 full sections of comb honey, and 60 pounds of extracted. I also got one artificial swarm from it, which gave me 30 pounds of extracted honey. I did not extract it, or extract any honey, from the brood-combs. I use 10-frame hives.

I was so well pleased with some supplies I received from R. H. Schmidt & Co., another of your advertisers, that I could not refrain from writing this letter. That new hive of theirs, I believe, is all right.

Before I close I want to thank you, Mr. Editor, for the nice index you gave us for the last volume of your paper. I have used it at least a hundred times already. To say the least, I do not regret that I became one of your subscribers.

E. W. Brown.

Cook Co., Ill., Jan. 28.

Old-Time Honey Harvest Expected.

Our bees have done us no good for the last three years, on account of drouth, but the past summer was unusually growthy, and an abundance of white clover manifested itself, and the present prospects are for an old-time honey harvest the coming season, especially to those who have fed the past fall liberally.

I am now disposing rapidly of my extracted crop of 1891-92, which heretofore could not be sold at sufficient profit. I receive readily now 12½ cents in bulk in cans, and cans returned. It is a splendid article.

I have wintering on summer stands 42 colonies.

The American Bee Journal increases in usefulness as the months go by, and no progressive apiarist can afford to do without its weekly vitalizing influence.

Ross Co., Ohio, Jan. 28. O. A. Cory.

Prospects for a Good Crop.

The prospects in southern Indiana are exceedingly flattering for a good crop of honey next season. We have had a splendid rainfall, and white clover never lookt better. There has been no crop from this source in this county for five years. That zero weather in January robbed me of 15 colonies of fine golden Italians, which I had intended using for next season's queen-rearing. They were left on the summer stands, without packing, to test their wintering qualities. The leather-colored Italians came through all right, being stronger in numbers. My crop of 1896 was only 1½ tons, while J. J. Cosby secured 5,000 pounds of fine comb honey.

J. C. Wallenmeyer.

Vanderburgh Co., Ind., Feb. 9.

Bee-Keeping Experiences.

I was quite interested in the account of the case between Dr. Besse and his township trustees, reported on page 40, having known the Doctor from boyhood—in fact, it was through him that I became interested in bees, and through him I invested my first dollar in the business in subscribing for the old monthly (then) American Bee Journal, in 1883, and I have taken it regularly ever since, and must say I enjoy it very much. My wife often says, "I don't see what you find so interesting in bees and bee-papers. It seems to me that they are the same old thing, over and over." My

THE BURDENS OF THE FARMER'S WIFE ARE MANY FOLD and often seem to be greater than she is able to bear. This is doubly true when sickness comes to her and leaves in its wake that condition of lassitude which bespeaks a broken down condition. The most fruitful causes of these conditions are

FEMALE COMPAINTS,
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A sure and effectual remedy for these and all diseases resulting from disordered Kidneys and Liver is

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Large sized bottles or new style smaller ones at your nearest store.

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Has No Sag in Brood-Frames
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Being the cleanest is usually worked the quickest of any Foundation made
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Yell, O Yell, O'YELLOWZONES
Yellowzones for PAIN and FEVER.

Honey - Clovers!

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5℔	10℔	25℔	50℔
Alsike Clover	$ .70	$1.25	$3.00	$ 5.75
Sweet Clover (white)	65	1.20	2.75	5.00
White Clover........	.90	1.60	3.75	7.00
Alfalfa Clover.....	.65	1.10	2.70	5.00
Crimson Clover....	.55	.90	2.00	3.50

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Add 25 cents to your order, for cartage, if wanted by freight.
Your orders are solicited.

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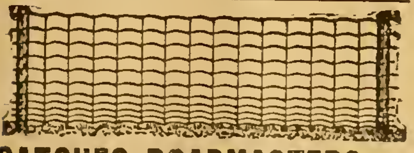
JOHN NEBEL & SON, High Hill, Mo.
Mention the American Bee Journal. 4Atf



CATCHES ROADMASTERS
Last spring several farmers on the line of a big railroad rebelled against barbed wire, and demanded board fences. They compromised on the **Page**, first the company had used. Our man lately called on the Roadmaster, who wanted him to "see those farmers, who would hug and kiss you, and I've got to have 25 miles on my division."
PAGE WOVEN WIRE FENCE CO., Adrian, Mich.
Mention the American Bee Journal.

One Cent invested in a postal card will get my large Catalog of All Root's Goods. Send list of what you want, and get price.
M. H. HUNT, Bell Branch, Mich.
WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

Early Italian Queens
Up till the middle of April at these prices:
Untested, 75c.; Tested, $1.25.
E. L. CARRINGTON,
5A17t **De Funiak Springs, Fla.**
Mention the American Bee Journal.

reply is, "You see, dear, you 'are not strictly in it.' 'There's the rub.'"

I studied bees from 1883 to 1886 (getting to be quite a veteran, am I not?) before I thought I knew enough to handle them. I have kept from 2 to 40 colonies since. I mean to go at it in earnest now, and if I succeed I hope to reach my dream of a thousand colonies.

I have lost 2 colonies this winter, probably due to carelessness, as I did not have time to give them proper attention, and I think the queens were destroyed in extracting time.
ALBERT VOUGHT.
East Carroll Co., La., Jan. 25.

Straight Combs Without Separators.

The reason some don't get straight comb honey without separators is because of the way they use bait sections, or if they use only one or two sections they should take them out as soon as the bees begin to draw out the foundation. I have had no trouble when managed this way.

My bees are wintering all right, packt on the summer stands. We are looking for an old-time white clover honey-flow this year. Everything points that way.
W. D. CRAIG.
Montgomery Co., Ill., Feb. 9.

The Season in Washington.

In November, 1896, we had some unexpected cold weather, indeed so cold that all natives could not remember having had such cold weather before for the time of the year in this part of the State. The mercury, some nights, dropt down to 16 degrees, and potatoes, cabbage, etc., that some people are used to leaving out on the ground all winter in their natural state, were nearly all killed. Since then we have had but very little cold weather, and the bees have been flying a good deal more than I like. Right now it is all spring weather, changing every hour with sunshine and showers of rain. With this kind of weather I expect to see the bees carrying in pollen in a few days from now.
T. H. WAALE.
Clarke Co., Wash., Feb. 9.

Gathering Pollen—Drones.

We have had a splendid winter thus far, mild and pleasant, with only three days that bees did not gather pollen. We have had abundance of rain to date, and it has come just right—all soakt into the soil. You must know that a peculiarity of this climate is that it usually rains in the night, and is clear or partially cloudy in the daytime. It just suits the old lady that wisht it would only rain Sundays and nights so the hired men could have a rest!

Bees are doing well, and just tumbling over each other carring in pollen and some honey, sufficient to not have to draw on their stores.

Mr. Paxton here informs me that he reared a queen and had her fertilized in January, by drones reared from an unimpregnated queen. Now, what are you going to do about it?
DR. E. GALLUP.
Orange Co., Cal., Feb. 10.

Dividing for Increase.

On page 54, I see a reference to a paper by N. E. France. Last August I had on hand 8 frames of fair comb from a defunct colony. My bees (I have only 12 colonies) had not been swarming much of any, but were all good. I thought I would save those combs. I took a central comb, or nearly so, from each of seven hives, with adhering bees, brood, etc., and put them into an empty hive, with the remaining *empty* comb in the center. As all were now demoralized by this "amalgamation" and the new order of things, I turned a little bee-feed down in among them, thinking that, true to their instincts, they would all pitch in to secure their stores and forget to fight, and store them at home—the nearest

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For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 25 cents per pound, CASH; or 28 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly,** for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,
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That covers the whole Apicultural Field more completely than any other published, send $1.25 to Prof. A. J. Cook, Claremont, Calif., for his
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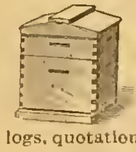
18 years the Standard. The 4-inch "Smoke Engine." Is it too large? Will it last too long? Will save you lots of money and bad words. Send for Circular. 6 sizes and prices of Bingham Smokers and Knives.
T. F. BINGHAM, Farwell, Mich.
5Atf *Mention the American Bee Journal.*



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I want the name and address of every Bee-Keeper in **America.** I supply Dealers as well as consumers. Send for catalogs, quotations, etc. **W. H. PUTNAM,**
RIVER FALLS, Pierce Co., Wis.
Mention the American Bee Journal.

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Root's Goods at Root's Prices.
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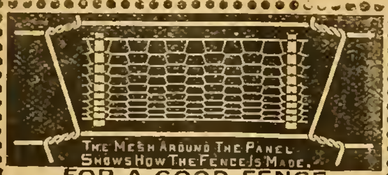
Send for our new catalog.
"**Practical Hints**" will be mailed for 10c. in stamps. Apply to—
Chas. F. Muth & Son, Cincinnati, Ohio.
Mention the American Bee Journal.

White Clover Honey Wanted I want to correspond with all readers of the Bee Journal who have (or expect to have this year) white clover extracted honey for sale. **Wm. A. Selser,**
10 Vine St., PHILADELPHIA, PA.
Mention the American Bee Journal.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that can't blow down nor burn up; that turns all kinds of stock without injury; that can't sag because it takes up its own slack by expanding and contracting as required; a fence which meets every requirement of a farm fence—buy the KEYSTONE. 25 to 58 inches high. Fully described in our free book on fence construction. Send for it.
Keystone Woven Wire Fence Co.,
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THE ROYAL UNION
Life Insurance Company
DES MOINES, IOWA.

The Iowa Policy
Is one that definitely promises to keep an accurate account with you; credit your premiums and interest, charge the actual expense and mortuary cost, and hold the remaining funds subject to your order.
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Pet Stock and Incubators if conducted according to "The Chautauqua Guide to Big Profits" just out and sent postpaid with our 1897 Catalogue for 4c to help pay postage, etc. Best eggs and stock cost no more if purchased of us, you can then sell your product to us and thousands others for high fancy prices. We own 300 acres most elegantly adapted to poultry. CHAUTAUQUA POULTRY & PET STOCK FARM, Box 17 KENNEDY, N.Y
7A13 *Mention the American Bee Journal.*

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APIARY—Glen Cove, L. I.

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48Atf Box 187, SHEBOYGAN, WIS.
Mention the American Bee Journal.

WANTED—ATTENTION!
SEE HERE, Friend Bee-Keeper, the best goods are none too good, and the lowest prices are none too low for the present times, so down go the prices for 1897 on Full Line of Bee-Keepers' Supplies.
I defy competition in quality and workmanship. Working Wax into Foundation when sent to me, a specialty. Write, without fail, for Catalog. My prices are worth looking at. Wax wanted at 26c cash, or 29c in trade, delivered. August Weiss, Hortonville, Wis.
6A8t *Mention the American Bee Journal.*

Cockerels A Choice Lot of thoroughbred B. P. Rocks, S. C. Black Minorcas, S.C. Brown Leghorns, $1.25 each. Eggs from same breeds in season $1.25 for 15. Also PLANTS—Strawberry, Red and Black Cap Raspberry.
Mrs. L. C. AXTELL,
7Atf ROSEVILLE, Warren Co., ILL.

market. Well, it workt like a charm, and I do not think there was ever a cross word among them. As there was but little honey in those combs, I fed them a little for a few days, so as to keep them busy, and as they were not getting much outside. I expected them to rear their own queen, and they would, but three or four days later I gave them a laying queen

After a week or so I lookt, and found one-half dozen queen-cells started, but now broken up, and eggs in both sides of the empty comb I had given them. They work as well, or better, than my other colonies, and on through the fall, I considered them just as strong and good as any I had. In the fall I took 10 or 12 pounds of section honey from them, and *now*, in the cellar, I think them as good as any I have.

I will add that my hives are all 8-frame, still this one is as good as any I have, and all are tip-top for Feb. 4.

Mr. France took the above ground, and I relate my success in that line.

A. W. HART.
Stephenson Co., Ill., Feb. 3.

* * *

Good Influence of Bee-Keeping.

It is very strange, but really very pleasing, that our little bees, and the culture thereof, draw the apiarists together in a brotherhood and sisterhood, as if they became oath-bound. This is a better odd-fellowship then that three-linkt fraternity. Would to God that all other agricultural pursuits would have the same effect! What a power would agriculturists be in our land, and how much good could they effect for the poor and downtrodden majority of our people! Of course, that would necessitate organization of all agriculturists, and—oh! that the bee-hive would teach us, and drive us together into something—still better then the Farmers' Alliance, now staunch dead, because it did not confine itself to the original and common issues of universal utility. The study of our beloved little bees, that gather honey from so many different plants, could teach us to beware of some idiosyncrasies and foolish eccentricities that killed that dear—but now dead—Farmers' Alliance.

(REV.) F. L. RICHTER.
Cass Co., N. Dak.

* * *

Chances for a Good Season, Etc.

We had a good season last year, and the chances are good for the one that is coming.

What has become of the remainder of that "St. Joe" convention report?

I approve of the stand the American Bee Journal has taken in regard to commission-men, honey-adulteration and amalgamation. May the shadow of the American Bee Journal never grow less.

Cass Co., Mo., Feb. 2. W. D. HURT.

[Mr. Hurt, we don't know whether you refer to "the remainder of the 'St. Joe' convention report" still "on file" in Washington, or our own "remainder," which we purchast of the reporter of that meeting. The latter we are still holding, as we thought there was so much more important matter that ought to be publisht ahead of it. We hope to reach it very soon now. But the longer we wait, the more apparent will be its "historical value!"—EDITOR.]

* * *

A Threatened Bee-Lawsuit.

When I wrote to Mr. Newman, the General Manager of the National Bee-Keepers' Union, about my apiary being termed a nuisance in this city, I supposed the petition was to be presented to the city council, but I found out later on that the council had been petitioned at least twice before, and had refused to take action.

Then they commenced proceedings in the district court, charging the bees with eating fruit, an annoyance about watering-places, stinging, soiling clothing, and other

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For Sale at Low Prices and on Easy Terms.
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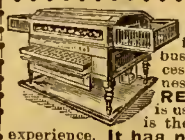
lying along and owned by the Yazoo & Mississippi Valley Railroad Company, and which that company offers at low prices and on long terms. Special inducements and facilities offered to go and examine these lands, both in Southern Illinois and in the "Yazoo Valley," Miss. For further description, map, and any information, address or call upon E. P. SKENE, Land Commissioner, No. 1 Park Row, Chicago, Ill. 8E6t
Mention the American Bee Journal.



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THE KEYSTONE DEHORNER
It is humane, rapid and durable. Fully warranted. HIGHEST AWARD AT WORLD'S FAIR. Descriptive circulars FREE.
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Best on Earth. Horse-high, Bull-strong, Pig and Chicken-tight. With our DUPLEX AUTOMATIC Machine you can make 60 rods a day for 12 to 20 cts. a Rod. Over 50 styles. Catalogue Free.
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GAMES FREE & useful articles for only 2-6mo. subs. to Poultry Keeper at 25c. Every poultry raiser wants this leading poultry paper. Sample free. Address POULTRY KEEPER Co., Box 44 Parkesburg, Pa.
Mention the American Bee Journal.

things; stating that they "bite" at one end and sting at the other. I think it would be interesting to have a bee examined, and have them show her teeth.

Now as the burden of proof is on the prosecution, and as they have singled out my bees from all the others in the city, I think it will be difficult to identify my bees from the others. There are 19 colonies on the next block east of me; 25 colonies within a radius of 5 blocks; and 62 colonies inside of the city limits, besides my 100 colonies.

Now for the location of my apiary: I am in what is known as the "Irregular Survey," it being 2 blocks east and west, and 1½ north and south, without street or alley through it, and 195 feet from the nearest sidewalk on 14th street, and 70 feet from Logan street, without walk and but little traveled; 218 feet from Dr. N. L. Van Sandt's residence, who is the principal kicker, and 164 feet from the nearest colony in my yard to the nearest residence.

On the day after the sheriff served the papers on me, I received a letter from Mr. Clark, the Doctor's attorney, asking me to call at their office. I did so. He proposed to withdraw the suit if I would promise to remove my bees. I did not promise. Before leaving the office I secured the names on the petition (nine in number)—not a very large list for a city of over 3,000.

Then in a few days I received another proposition, which was the same as the first, with $50 added. I told him there was no compromise in the matter. After receiving the "Decision of the Supreme Court" from the Union, the others drew off, and left the Doctor standing alone. He told my attorney that he thought I would be like Davy Crockett's coon—when he pointed his gun at me, I would "come down." He will find me more like "Banquo's ghost"—it would not down. His attorney told him if he went ahead with the suit, he did so at his own risk, as he could promise him nothing in the outcome. He has concluded not to bring it up at this term of the court.

I want to thank Mr. Newman for his promptness in sending the Supreme Court Decisions. J. L. STRONG.

Page Co., Iowa.

* * *

Against Sweet Clover Honey.

Now, Mr. Editor, please don't join in the praise of the quality of sweet-scented clover honey. We have raised just as fine white clover honey in this vicinity as the country produced, but ever since melilot has run out the white clover from our commons and fence-corners, the honey we produce is sweet-scented clover honey, which is no worse than other bokhara honey, of course, but which we could not offer to our trade, for table use, without losing our customers, all arguments to the contrary notwithstanding. CHAS. F. MUTH.

Hamilton Co., Ohio.

The Danzenbaker Hive

Has valuable features possest by no other, and is surely winning its way; was awarded a Special Diploma, and 1st Premium for COMB HONEY, at Mich. State Fair, 1896

Address,
Francis Danzenbaker, Medina, Ohio.
Care The A. I. Root Company.

WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

Convention Notices.

Texas.—The next annual meeting of the Texas State Bee-Keepers' Association will be held at Greenville, Wednesday and Thursday, April 7 and 8, 1897. All are cordially invited to attend.

HONEY and BEESWAX

MARKET QUOTATIONS.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

Chicago, Ill., Feb. 18.—Fancy white, 12c.; No. 1, 10@11c.; fancy amber, 8@9c.; No. 1, 7c.; fancy dark, 7@8c.; No. 1, 7c. Extracted, white, 5@7c.; amber, 5@6c.; dark, 4@5c. Beeswax, 25@26c.

Very little demand, considering season of the year.

Albany, N. Y., Jan. 29.—Fancy white, 12-13c.; No. 1, 11-12c.; fancy dark, 7-8c.; No. 1, 6-7c.; Extracted, white, 5½-6c.; dark, 4-5c.

The honey market is very quiet and stock moving very slowly, even at reduced prices. White clover is not plentiful. Extracted is moving very slowly, but we hope for an improved demand soon.

Indianapolis, Ind., Feb. 20.—Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Boston, Mass., Feb. 20.—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Cleveland, Ohio, Feb. 20.—Fancy white, 14½@15c.; No. 1 white, 12½@13c. Extracted, white, 6@7c.; amber, 4½@5½c. Beeswax, 22@25c.

There is not very much honey in our market Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

Kansas City, Mo., Feb. 19.—No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 9@10c.; No. 1 dark, 8@10c.; Extracted, white, 5½@6c.; amber, 5@5½c.; dark, 4@4½c. Beeswax, 20@25c.

St. Louis, Mo., Feb. 19.—Fancy comb, 12@@13c.; No. 1 white, 11@11½c.; amber, 9@10½c.; dark, 7@8½c. Extracted, white, in cans, 6@7c.; amber, in barrels, 4@4½c; extra, 5c.; dark, 3@4c. Good demand for barrel stock—comb slow sale. Beeswax, 23@23½c.—prime finds ready sale at 23½c.

San Francisco, Calif., Feb. 10.—White comb, 9-10c.; amber, 5-7c. Extracted, white, 5-5½c.; light amber, 4-4½c.; amber colored and candied, 3¾c.; dark tule, 2¾c.

Beeswax, fair to choice, 23-25c.

Philadelphia, Pa., Feb. 2.—Fancy white comb, 12-13c; fancy amber, 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3½-4c. Beeswax, 25c.

Season is getting over for comb honey—very little demand. Extracted in good demand.

Detroit, Mich., Jan. 9.—Fancy white, 13-14c; No. 1, 12-13c.; fancy amber, 11-12c.; No. 1 amber, 10-11c.; fancy dark, 9-10c.; No. 1, 8-9c. Extracted, white, 5½-6c.; amber, 5c.; dark, 4-4½c. Beeswax, 25-26c.

Cincinnati, Ohio, Feb. 20.—No. 1 white, 12@13c.; No. 1 amber, 10@12c.; dark, 8@10c. Extracted, 3½@6c., according to quality. Demand is slow for all kinds of honey.

Beeswax is in fair demand at 22@25c. for good to choice yellow.

New York, N. Y., Feb. 20.—There has been a little better demand for comb honey during the last two weeks. Prices, however, will not improve, as the season is too far advanced and plenty of stock laying on the market. We have a good demand for extracted buckwheat, candied, and bee-keepers having their crop on hand yet, should now market it.

Beeswax is quiet at 26 28c., according to quality.

Minneapolis, Minn., Feb. 20. — Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Buffalo, N. Y., Feb. 19.—Fancy white comb, mostly 9 and 10 cts., and in moderate demand, while other grades are very hard to sell unless prices are made very low, ranging from 7@5c. There is stock that is poor enough to not bring over 4c. Extracted in moderate demand at 3@4c.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN.

Kansas City, Mo.
C. C. CLEMONS & Co., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
WILLIAMS BROS., 80 & 82 Broadway.

St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.
S. H. HALL & Co.

Milwaukee, Wis.
A. V. BISHOP & Co.

Boston, Mass.
E. E. BLAKE & Co., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. MCCULLOCH & Co., 380 Broadway.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central avs.

A Special Booklet Bargain!

For a limited time we wish to make our readers a **special offer** on booklets on Bees, Poultry, Health, etc. Upon receipt of **75 cents** we will mail any **6** of the list below: and **for $1.25** we will mail the **whole dozen**:

1. Foul Brood, by Dr. Howard	25c
2. Poultry for Market and Profit	25c
3. Turkeys for Market and Profit	25c
4. Our Poultry Doctor	30c
5. Capons and Caponizing	30c
6. Hand-Book of Health, by Dr. Foote	25c
7. Kendall's Horse-Book	25c
8. Rural Life	25c
9. Ropp's Commercial Calculator	25c
10. Foul Brood, by Kohnke	25c
11. Silo and Silage, by Prof Cook	25c
12. Bienen-Kultur, by Newman	40c

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In order to assist the thousands of unemployed men in Chicago, the Workingmen's Home, at 42 Custom House Place, has establisht a Free Labor Bureau, and is prepared to furnish men to farmers and others in all parts of the country without expense to either. Employers applying should state definitely as to the kind of work, wages to be paid, and if railway fare will be advanced.

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THE W. T. FALCONER MFG. CO.,
JAMESTOWN, N. Y.

Mention the American Bee Journal.

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It may be of advantage to you communicate with us if you have Pure Yellow Beeswax for sale. No impure wanted. We are buyers.

Address, **BARGET & HEID,**
8 S. William St., NEW YORK, N. Y.

Mention the American Bee Journal. 8A4t

Beeswax Wanted for Cash

Or in Exchange for

Comb Foundation.

Highest Price Paid.

If you want your **Wax Work**t into **Foundation,** satisfactorily, promptly, and at the **lowest price,** send it to me.

☞ Write for Price-List and Samples.

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LEADS THEM ALL !

Williams' Automatic Reversible Honey-Extractor

LEADS THEM ALL. **You want the best.**
Price-List Free.

Van Allen & Williams, Barnum, Wis.

8Etf *Mention the American Bee Journal.*

If You Want to Know

How to run Out-Apiaries for Comb Honey with almost no swarming, read the December number of the BEE-KEEPERS' REVIEW. If you want to know the exact method followed by Mr. M. M, Baldridge in securing Drawn Combs for use in the sections, read his article in the January REVIEW. If you want to know how to make a Home-Made Foot-Power Buzz-Saw—the equal of any foot-power saw—read the illustrated article on this subject in the January REVIEW. If you want a paper that is full of practical information that will help you to make money in the apiary, subscribe for the REVIEW. It is $1.00 a year, but, if you are not a subscriber, see the special inducements offered to new subscribers on page 64 of the Bee Journal for Jan. 28, 1897.

W. Z. HUTCHINSON,
FLINT, MICH.

Mention the American Bee Journal.

20th Year Dadant's Foundation 20th Year

Why Does It Sell So Well ?

Because it has always given better satisfaction than any other.

Because **IN 20 YEARS** there have not been any complaints, but thousands of compliments.

We Guarantee Satisfaction.

What more can anybody do? **Beauty, Purity, Firmness, No Sagging, No Loss. Patent Weed Process of Sheeting.**

Send Name for Our Catalog, Samples of Foundation and Veil Material. We sell the best Veils, cotton or silk.

Bee-Keepers' Supplies of All Kinds.

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The Classic in Bee-Culture—Price, $1.25, by mail.

CHAS. DADANT & SON,

Please mention the Am. Bee Journal. **HAMILTON, Hancock Co., ILL.**

4¼ SECTIONS 4¼ SECTIONS

Our business is making Sections. We are located in the basswood belt of Wisconsin; therefore the material we use cannot be better. We have made the following prices:

No. 1 Snow-White.		No. 1 Cream.	
500	$1.25	500	$1.00
1000 at	2.50	1000 at	2.00
3000 at	2.25	3000 at	1.75
5000 at	2.00	5000 at	1.50

If larger quantities are wanted, write for prices.

Price-List of Sections, Foundations, Veils, Smokers, Zinc, Etc., Sent on application.

6A35t **MARSHFIELD MFG. CO., Marshfield, Wis.**

Cut Prices to Move Stock !!

There are a few items of desirable stock left of the goods secured of Thomas G. Newman when we took charge of his supply business here. In order to close these out and make room for fresh, new goods, we have decided to offer these at prices which will make them go.

The following is the list, which will be corrected as the stock is sold; if you see what you want here, order AT ONCE, or you may be to late:

V-Top Langstroth Frames, 75c per 100; 250 for $1.25; 500 for $2.
All-Wood Frames, pierced for wire, same price while they last.
50 Comb Honey Racks, to hold sections on the hive, flat, $1.00 for the lot.
No. 3 VanDeusen Thin Flat-Bottom Fdn., in 25-lb. boxes, $10.50 a box.
Wakeman & Crocker Section-Press, 50c each (old price, $1.25).
Townsend Section-Press, 50c. (old price, $1.)
Hill Feeders, quart size, 8c each, 75c per doz. (less than half old prices).
Hill Smokers, 40c each; by mail, 60c.
Quinby Smokers at 50c, 70c, and $1.00 each—20c extra by mail.
Jones' Frame-Pliers, 10c each; by mail, 10c extra (old price, 25c and postage.)

1896 Dovetailed Hives at Special Prices.

Desiring to make room for new goods, we offer from stock at this branch, No. 1 Dovetailed hives, 8-frame complete, with sections, foundation-starters, and nails, at $5.75 for 5; $10.50 for 10; $20.00 for 20: No. 1E, same without sections and starters, $4.75 for 5; $8.50 for 10; $16.00 for 20; 10-frame complete, 20 cts. each extra; 10-frame E, 15 cts. each extra. Other Hives in stock at a similar reduction.

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Geo. W. York, Manager. **118 Michigan Street, CHICAGO, ILL.**

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THE OLDEST BEE-PAPER IN AMERICA

DEVOTED EXCLUSIVELY TO THE INTERESTS OF HONEY PRODUCERS

37th Year. CHICAGO, ILL., MARCH 4, 1897. No. 9.

BIOGRAPHICAL

REV. W. K. MARSHALL, D. D.

Rev. W. K. Marshall was born in Indiana county, Pa., on July 19, 1808. He graduated at Jefferson College, in Pennsylvania, in 1833, and in 1836 he entered the ministry in the Presbyterian church, and had been actively engaged in the work of the ministry in that church up to the time of his death.

At an early period Dr. Marshall combined bee-keeping with his professional work. In 1839 he procured his first colony of bees, which was secured in the following way:

Bees could not then be bought, for the reason that all bee-keepers believed that if they sold their bees, they would sell their luck. An old German in the neighborhood, who had a large stock of bees, and who was a warm friend, was anxious for Dr. Marshall to get bees, and told him it was right to steal bees. When the Doctor informed him he could not steal, he said if he would leave the money on the stand where the bees stood, the bees would not find it out, and it would be all right; but it would not do to let any person see him.

So on one cold morning Dr. Marshall, with his wagon, took two colonies of bees, and left a five-dollar gold piece in the place.

At an early period he conceived the idea of an improved hive. He first made a hive in two parts, with slats between them, hoping in this he could divide the bees, and make two hives.

He next made a hive with bars on top 1¼ inches wide, and attacht comb starters to them. He was astonisht when he saw the Langstroth frame, that he did not see the necessity of end and bottom pieces.

Dr. Marshall went to Texas in 1854, and in 1855 started an apiary of some 20 colonies. In 1865 he first began to use the Langstroth hive, and in 1866 procured the first Italian queen, and probably the first that was brought to Texas.

With the movable frames, the Italian bee, and with his own discoveries, and those of others, he commenced progressive bee-keeping. At one time his apiary run up to 350 colonies, and he secured, one year, 20 tons of honey.

Dr. Marshall took the American Bee Journal when first publisht at Washington, D. C. He wrote largely on bee-culture for the home papers, and had been an active member of the Texas State Bee-Keepers' Association.

He was a close observer, and much of his knowledge in bee-culture was the result of his own observation and experience. Up to the time of his death he was an active worker in bee-culture, and in every other good cause.

A Southern paper contained the following account of Dr. Marshall's death and church work:

Rev. W. K. Marshall, D. D., died at his home in Marshall, Tex., Jan. 6, 1897, in the 89th year of his age.

We met him last at the General Assembly, at Dallas, in May, 1895, and tho his form was bent his eye was bright, his courage brave, and his voice reasonably strong, even at the age of about 87.

On his 88th birthday, in July last, he preacht in the church at Marshall, administering the communion in a most impressive and touching manner.

Dr. Marshall has left his impress on the church in the eastern part of Texas. For about 40 years he labored in eastern Texas, and for 20 years he lived in Marshall, or in its neighborhood, and has taken an interest in all the work of our church in that locality. And he has awakened others to work for the Lord.

At the funeral, on Jan. 8, the services were conducted by Rev. J. E. McLean, assisted by Rev. Dr. Riggs, of Dallas.

By the kindness of Rev. C. M. Hutton, we have the following sketch of his life;

"Rev. William K. Marshall, D. D., the son of William Marshall and Mary Kirkpatrick, was born in Indiana county, Pa., July 19, 1808. He had five brothers, John, James, Samuel, Robert and Benjamin. Samuel was a minister and died the first year of his ministry. John was an elder in the Presbyterian church 65 years, and was still living, in his 88th year, at the date when this sketch was written (Feb. 6, 1895). Dr. W. K. Marshall was graduated from Jefferson College, Pa., in 1833, under the presidency of the celebrated Matthew Brown. He attended the Western Theological Seminary at Allegheny, Pa., in 1833-36. He had joined the church in his college course at Jefferson College in 1832, and imme-

W. K. Marshall.

diately after his graduation, went to the Theological Seminary. He was received into the Canonsburg church, Pa., then under the pastorate of Rev. John McMillan. He was licensed at Blairsville, Pa., in 1836, by the Presbytery of Blairsville. He was ordained at La Porte, Ind., by the Presbytery of Logansport. He was married to Sarah Morrison at La Porte, Ind., in 1839. He celebrated his golden wedding in 1889. He was pastor as follows: La Porte, Ind., 1837-45; Van Buren, Ark., 1846-54; Henderson, Tex., 1855-75. Since this time he has been largely engaged in evangelistic work. At the date of his sketch (Feb. 6, 1895) he had been in Texas 41 years, and had never mist a day, by sickness, from his ministeral work."

Contributed Articles

"Price of Comb Honey vs. Extracted."

BY G. M. DOOLITTLE.

Following up that convention discussion, spoken of in my last article (see page 81), I next find Dr. Miller stating the question in a still different way, for he says:

"In other words, the question now is, What is that honey [extracted of the same grade as comb honey which sells at 22 cents per pound] worth to me on my table?" At this Mr. Ellis jumps up and says, "The same price," while Mr. York demurs, and says, "The question is, 'What should consumers pay?'"

Now, if the Doctor knew what he was doing when he stated the question at this the final statement, as is given in the report, then I accept none of the replies given later, but would answer by saying that one pound of extracted honey of the same grade is worth to Dr. Miller, or on Dr. Miller's table, just as much as it was in the year 1874, when he would have had to pay from 30 to 40 cents per pound for a good article of extracted honey. Is not that so? If not, why not? Don't all speak at once. Will not that pound of extracted honey, "of the same grade," give just at much muscle, just as much health, just as much buoyancy, and just as much pleasure as it would in 1874? And if it will, is it not worth just as much? This being the fact, and no one will question this, why were some of those "Sucker" State people "off their base" enough to be talking only 10 cents for something which would give from 30 to 40 cents worth of muscle, health, life, and activity, in the year of our Lord one thousand eight hundred and ninety-six? Will some one who was at that convention rise and explain? for I am in a state of agitation over the matter.

But should such a thing be possible that the good Dr. Miller's brain got a little twisted, so that he did not make the question exactly plain, which required Mr. York to put in his demurer, and that Mr. York stated the question aright, then taking the foregoing into consideration, the thing is very simple; the consumer should pay from 30 to 40 cents per pound for extracted honey of the same grade as comb honey selling at 22 cents per pound, for we have already seen that this said pound of honey was worth that in muscle, health, etc., no matter whether the year was 1 or 1896. In this I am borne out by Mr. Grabbe, where he speaks of intrinsic value, for intrinsic value is *essential* value, and muscle and health is one of the greatest essentials to man in this world.

But hold on: I see by looking closely, that this same Mr. Grabbe says, "I don't think that we can say what the consumer should pay, he decides that for himself." Does he? If so, how comes it about that it is decided for me just how much of the price of my honey I shall pay for coal, for kerosene oil, for boots, yea and for freight on my honey? Have I, as a consumer of these things, a chance to decide for myself what I shall pay? Those who think I have, hold up your hands. What, not a hand up? Then if I, as a consumer of coal, of boots and freight, have to pay just what I am charged for the same, must not the consumer of my honey pay just what I see fit to charge him for it? If not, then there is something wrong somewhere, and the sooner I find where this wrong is, and remedy it, the better it will be for me, and what is better for me, will be better for the world.

Can it be that it has come to such a pass with bee-keepers, that they have to say to others, "What will you give?" and when they have the "what will you give" price in their hands, turn around, get down on their knees and humbly say to others, "What will you take?" Have we come to the white man and Indian condition, who, after a day's hunt, found their possessions to consist of a turkey and a turkey buzzard, to be divided; and have it said to us, as the white man did to the Indian, "You can have the turkey buzzard and I will take the turkey, or I will take the turkey and you can have the turkey buzzard?" If so, then we can well exclaim with the poor Indian, "He talkee no turkey to me!"

And now I wish to put before the reader another line of thought, even should it butt against some of the things I have advanced in this and the preceding article.

I have always considered Mr. Baldridge a level-headed apiarist, and so consider him yet, but the most level-headed are sometimes liable to make mistakes, and if Mr. B. was reported correctly, on pages 22 and 23, he there made one of the greatest mistakes of his life. Speaking on the price of extracted honey, it is reported that he said, first, "without any reference to the cost." Next he is made to say, "It is immaterial, for that matter, what it costs the bee-keeper to produce it." And lastly he says, "that it is not his [the consumer's] business to know what it costs me to produce it" [extracted honey].

Well, if the above three quotations are right, then the greatest of the Bible commands—"Thou shalt love they neighbor as thyself"—has no place in the affairs of men to-day. God created the world, sent it rolling through space, and provided in it everything necessary for the physical wants and comfort of man. Then he created man, and said to him, "Go till [labor on] the soil, eat and live." Hence, we have in labor (costs) *everything* which should regulate the price of anything which any member of the human family desires. The land (and this, in an economic sense, includes everything as it came from the hand of God, unimproved upon by man, like the soil, the trees of the forest, the fish of the sea, the bees in their natural home, etc.) God gave free; man furnishes the labor, and from labor applied on land comes wealth. Thus, in order to do no injustice to any one, the labor part (cost) should regulate the price of any article or thing desired by man. As it costs in labor about six times as much to produce a bushel of wheat as it does to produce a pound of comb honey, six pounds of comb honey and a bushel of wheat should be about equal as to price, and, remaining so, the bee-keeper and the wheat-grower love each other [their neighbor] as themselves.

This we see has been very nearly followed out, for when wheat brought $1.50 a bushel, honey brought 25 cents per pound; when wheat went to 75 cents, honey brought 12½ cents; and I have never heard any bee-keeper growl about hard times, or low price of honey, when he compared honey with wheat. Compare butter with honey, in the same way, and we see no one is doing ought except loving their neighbor as themselves, along *this* line. But when we come to lay the labor cost of honey along side of coal, oil, railroad fare and freights, salaries of officials, interest, taxes, etc., then we see that it takes from two to five times as much of our labor in bee-keeping to procure the same results to us that it did 25 years ago. And as we bee-keepers look on this side, more than on any other, and smart under the wrongs being perpetrated by those who are not loving their neighbors as themselves, thus defrauding us, by bringing on an inequality, an unjust system, we get "our backs up" and talk as did Mr. Baldridge, or propose a "Bee-Keepers' Exchange," in order that we can match this "money power" in its wrong doing, and so force our share from them by using the same wrong principles. Thus we are saying "an eye for an eye and a tooth for a tooth," instead of striving to carry out the doctrine of the Blessed Master, by working with might and strength to put down this wicked, false system, and establish in its place a system which will do no one injustice.

Just a few words more and I will close this already too long article. If the principles put forth by Mr. Baldridge and the California Honey Exchange could be carried out to their fullest extent (which is impossible), are we sure we should not be wronging others? Listen: "Nightgowns, with tuckt yokes and insertion, are being made at $1.00 a dozen; shirts are being made at 30 cents a dozen; coats are being 'finisht' at 30 cents a dozen; neckties are being made at $1.25 a gross," etc., according to "Prisoners of Poverty." Think of forming an "Exchange" to keep the price of extracted honey up to 22 cents per pound, and thus compelling some poor human being, created in God's own image, to make 26 neckties for the same, that the sick and starving children may have something to soothe their irritated, coughing throats, and then saying that the cost cuts no figure in the matter! Then, remember, that through our unjust system 35,000,000 people are without homes in this land of liberty [?], with little or no chance of the results of their labor (after furnishing the actual necessities of life), ever going for a pound of honey!

The time has come for thought and action along other lines than "how to produce the most and best honey from a given number of colonies," etc. (which we have been writing about during the past), if we are to live in the future at our beloved pursuit.

That the bee-keepers of the world may be set to thinking, is the excuse for this and the former article.

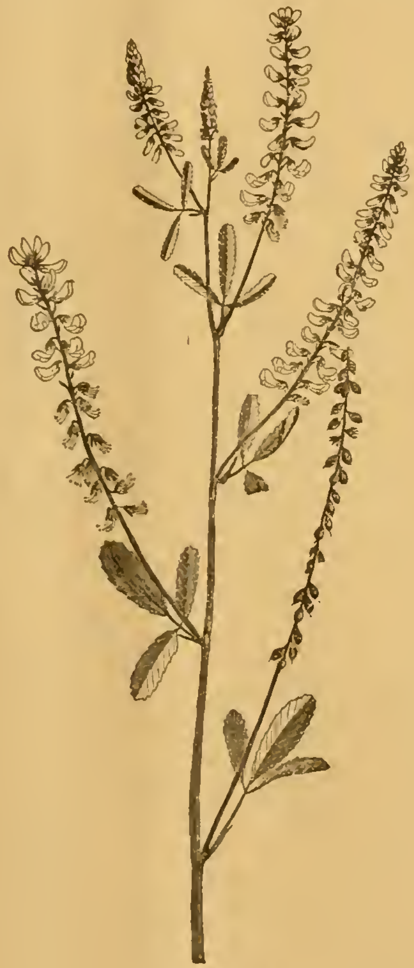
Onondaga Co., N. Y.

Value of Sweet Clover—How to Grow It.

BY S. M. SEELEY.

I noticed an inquiry in the Bee Journal regarding sweet clover as a bee-food, when to sow it, etc., and as I have had 10 or more years' experience with sweet clover, and know some of its good qualities, I wish to recommend it to the readers of the Bee Journal.

As a bee-food the sweet clover, either the yellow or white, has no equal as a honey-plant, and I have observed that those who have access to it invariably report a good supply of honey. Such has been the case with me, while many who have not the clover, are feeding their bees each winter.



Sweet Clover—Melilotus Alba.

Now, I would suggest to those who read the Bee Journal, that they profit by the experience of others, and at least give this clover a fair trial. It is my experience that it makes the greatest quantity and finest quality of honey of any plant I have ever tried.

I also consider sweet clover a good fertilizer, and I have not yet found its equal if properly applied.

I would recommend this procedure: After cultivating your corn the last time, sow two or more acres at the rate of one measured bushel of seed per acre. It is best sown in the hull, as it loses its germinating qualities sooner if hulled. The ground being shaded, it will not make a very large growth until you cut the corn, which should be done as early as possible; then it will shoot up and cover the ground, and make a good fall feed as pasture.

The next year leave as many acres as will furnish you with seed for the next two or three years, and thrash it with a flail as soon as possible after cutting.

The remaining part of the field should stand till necessary to plant corn, then turn it under with a plow. If you wish to obtain honey from it, let it stand till it ripens. By this plan you may enrich your farm in a few years, and not have a weed to contend with.

Four years ago I sowed 4 acres for hog-pasture; a portion of this was bottom land, and well sodded with yellow dock. To-day there is no dock to be seen; in short, I believe sweet clover will take out any weed that grows. It is very easily exterminated, either by cutting or plowing under before the seed gets ripe.

I have read several sketches in the Bee Journal like this: "We have no surplus honey from our bees this season, and have fed 1,000 pounds of syrup to 40 colonies of bees." It strikes me if my bee-friends would scrutinize the Bee Journal more carefully they would see how men like Stolley, Baldridge, and others, succeed with different honey-plants, and they would have better reports for the Bee Journal.

Now, this may be rather severe, but I will make this offer to any one in Kansas or adjoining States, that has had access to sweet clover, with his bees in good condition, and has met with more than one failure in the last 5 or 6 years: I will pay his subscription to the Journal for one year. Now this may be a rather rash offer, as I have not read the Bee Journal that long, but will stand by my offer, hoping to learn of some one's experience that will be of use to me.

Waubaunsee Co., Kans.

[For seed rates on the above clover, see page 138.—Ed]

A Few Bee-Notes from California.

BY PROF. A. J. COOK.

Successful Honey-Year Expected.—We have now had at this place over 15 inches of rain, and the clouds still fling out their cheering banner. Last year we had only about 10 inches; 15 inches is the amount usually given as necessary to a honey crop. Thus we see that Southern California has reason to expect a successful honey year during the season of 1897. Mr. McIntyre, of the famous Sespe region, writes that they have had over 17 inches there. It is needless to say that the bee-keepers of Southern California are at present wearing their broadest smile.

Moving to California.—I am often askt by correspondents in the East regarding the policy of coming to California. I always reply that I think California offers special inducements to persons with some capital; but that it is dangerous for one to come here who has no capital, as the laborers seem more abundant than work. I have a case, however, in mind, that has interested me very much. It is that of Mr. Taylor, formerly a successful bee-keeper in Michigan. I had the pleasure of staying with Mr. Taylor at his pleasant California home a few days since. Mr. Taylor lost his health in Michigan, and his money as well, for it all went to the doctors. He left his family—wife and two children—in Michigan, and started for Southern California. His friends never expected to see him again. When he arrived here, four years ago, he had only $40, very poor health, and his wife and two children yet in the East. He has now entirely regained his health, has his wife and *three* children with him, has a fine apiary, and $2,000 in the bank.

I do not mean to say that everybody would accomplish as much. Mr. Taylor is an intelligent Christian man, true to the core, and is a hustler. He doesn't fool away any time, and he never lets an opportunity go, however humble it may be, if it presents good, honest work. To me, there is nothing pleasanter in this world than to see a man succeeding as Mr. Taylor is doing, and to know that our country will rarely let the industrious, deserving men go hungry to bed.

The Michigan Convention Report.—It was a rare treat to read the proceedings of the Michigan convention in the last American Bee Journal. It seemed almost like a visit again with such old tried friends as Taylor, Hutchinson and Bingham—noble fellows all. I often think of the good old times we had, talking over the interests of bee-culture, and planning for its more successful prosecution in our beloved

Michigan. It is pleasant to live over in memory the old scenes and pleasures of the past happy days, but I wish it to be in memory, for I never wish to leave, for long, this beloved Southern California. The grand mountains, the lovely climate with its genial sunshine, the luscious fruits, ever fresh, and, above all, the magnificent people, unequalled, I believe, on the face of the earth, hold me in perfect fascination to this lovely region of the South.

Los Angeles Co., Cal., Feb. 15.

⁂

Bee-Notes from Nebraska.

BY J. M. YOUNG.

When it is zero weather outside, like it has been for the last week, it is a good deal of satisfaction to know that nearly all of our bees are in chaff hives packt in good shape, and with plenty of honey to carry them through.

Comb honey is being sold in our market by Omaha wholesale bummers for less money than we can sell it. The honey is very nice, and put up in very attractive cases, holding 24 sections. It hails from Utah, and was perhaps gathered from alfalfa. Extracted honey is also being sold here by somebody, and is put up in small glass tumblers with a piece of comb put in. We notice that this honey doesn't candy. Mine always does.

I seldom open a bee-hive at any time unless I have the smoker lighted, and in good working order, sitting near by, in case of emergeucy. Very often I can, and do, open hives without blowing smoke down in among the bees, but then it is a risky business. Sometimes I have half a notion to think that the bees know just when you are prepared for battle, and about how much ammunition you have.

In learning to handle bees, it is foolish to think of getting them unless we make up our minds to work and subdue them. The dread of getting stung will soon disappear, and after diligent practice you will soon become accustomed to their ways, and after a short time you will be surprised to learn how easy it is to avoid their stings—in fact, after continued practice it will soon become natural and a pleasant pastime.

About the first thing I do when I pick up a new bee-paper is to read the editorials, or what the "bosses" have to say about this and that, and if there have been any new improvements made on honey-cases, covers to hives, and hives. I always think if there is anything to be launcht on the sea of apiculture, it should be accompanied by an engraving. Pictures cost money, that is true, but one can get a clearer idea, and at once, from a good illustration, than from a half column of directions, and in the end I firmly believe a good drawing or cut is worth more to the utensil to be introduced, than can be otherwise obtained.

I always like to read footnotes to any article, and they catch my eye first, for they are generally the cream skimmed from the milk, and many a time these short notes contains in substance the sense of the entire article.

If the bee-keeper tries to winter bees on the summer stands in any form of a hive other than a chaff or double-walled hive, it is my opinion that he will lose more in the value of bees than the extra expense he would be at in making chaff hives of some kind. I think that some form of a hive that can be used for summer advantages should be used. This thing of having outside winter cases to set over hives is decidedly at a disadvantage in many ways. When winter is over they cannot be used about the apiary during summer to any advantage whatever, but the bee-keeper must have a house or some place provided for them to keep them from the weather, or they will be warpt and weather beaten, and will last but a few years. Hence, the construction of my summer and winter chaff hive certainly overcomes many of these objections.

Very often, just a few bees from a queenless colony in the apiary will fly and dodge around your head all day long, and make a great deal of fuss, simply because they are a little bit out of humor, and their master has been tinkering with their mother, or handling them. The more you can kill or knock down these little rascals the less you will be bothered with them.

More bees starve to death with honey in the hive, and that within two inches of them, than from any other cause, from the fact that during severely cold weather bees form themselves into one compact form or body, and when all the honey is consumed within their reach, unless the weather is warm enough for them to change their location from one part of the hive to another, in order to reach their stores, they will surely starve with plenty of feed near them. This is usually the case with single-walled hives, hence the adoption of chaff hives to confine the heat arising from the bees.

Cass Co., Nebr., Jan. 30.

⁂

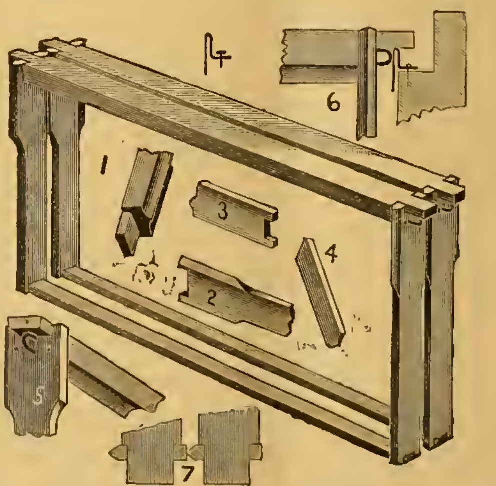
The New Hoffman Frame for 1897.

BY E. R. ROOT.

When we first introduced the Hoffman frame, some years ago, it took like hot-cakes, and the continued and increasing demand for it ever since shows plainly enough that it is a practical labor-saver. It had, however, just one fault; namely, that the bees would stick the ends of the top-bars to the contiguous parts of the hive-rabbet, so that, in order to remove one frame, it sometimes became necessary at some seasons of the year to break this top-bar propolis connection of several other frames before the frame in question could be removed. We have been studying on this problem for a couple of years. We have recognized the fact that a bee-space *around* the ends of the top-bars would solve the trouble. The next difficulty was, how to prevent end play. We had thought of a number of devices, and finally Mr. John S. Callbreath, of New York, sent us a frame with furniture-nails under the top-bar.

I must confess I was at first delighted with the idea. During the summer we tested several hives with these end-spacers on the frames; and to say that I was pleased with them after manipulation was putting it mildly. During the very worst part of the propolis season, and even when it turned cooler, so that the bee-glue would snap, I could handle Hoffman frames with these end-spacers, with my fingers alone. Such a thing as a screwdriver or a pry was unnecessary. The reason will be apparent. The metallic head of the furniture-nail striking against the tin rabbet would offer the bees no chance to propolize; and even if they did attempt to stick it, the points of contact were so small that it practically amounted to nothing. You can set it down as a rule that bees will never attempt to daub up with propolis a point of metal when it comes against a flat surface of metal.

But we met one serious difficulty—the cost. After a good deal of inquiry we were forced to the conclusion that we could not get these furniture-nails cheap enough without tucking on another dollar or two per 1,000 to the cost of the frames. Then our thoughts turned to nails, staples, strips of sheet metal, iron buttons, and everything else, in fact. The staples seemed to be the most feasible. Here is shown a set of Hoffman frames with staple end-spacers:



These staples, providing they are driven the right depth, are as good as furniture-nails, and cost only one-fifteenth as much. Of course, it will be understood that top-bars on all such frames will be a bee-space shorter than the last year's top-bars. The staples are fully as strong, and present as little surface of contact as the furniture-nails.

This improvement is so important and far-reaching in its benefits, that, just as soon as spring opens up, we shall change over to the end-spacing style of Hoffman in all our yards. It will not be necessary to discard our old frames filled with comb. One man, in three or four days' time, can change over all our colonies. He will carry along with him a light, *sharp* back-saw, and will cut off from each end of the top-bar ¼ inch, and then drive in the staple. Time can be saved by shaking the bees off all of the combs of the colony in front of the entrance, and then change the frames, after which proceed to the next colony. All surplus combs not in the hives can be changed over now in the shop.

The beauty of this improvement is that every one can adopt it for his own yard, where he has old-style frames; and the benefit is so great that it does not seem to me that any one can afford not to use it. We have already changed over a few of our hives sufficient to know that the work of changing over end-spacers is but slight, comparatively.—Gleanings.

CONVENTION PROCEEDINGS

Report of the Wisconsin State Convention.

The 13th annual meeting of the Wisconsin State Bee-Keepers' Society was called to order by the Secretary, Feb. 3, 1897. As the attendance was not very large, the forenoon was spent mostly in discussing the efforts to secure a foul brood law, and of the reports received.

At 1:30 p.m. the meeting was called to order by Pres. F. Wilcox, followed with prayer by Rev. Winter. The minutes of previous meeting were read and approved, after which a report of the committee on foul brood legislation was given as follows:

REPORT ON FOUL BROOD AND SWEET CLOVER.

February 7, 1896, the Wisconsin State Bee-Keepers' Society adopted the following resolution:

"*Resolved*, That a committee be appointed which shall represent all the bee-keepers' societies of Wisconsin; that said committee shall correspond with the bee-keepers of the State, to learn the extent of bee-keeping in Wisconsin, the annual production of honey and wax, the extent and seriousness of foul brood, and how many really desire their bees protected by a foul brood law. Also that said committee inquire of bee-keepers and others if they desire sweet clover (melilotus alba) stricken from the noxious weed list. Said committee to take such action as seems best to secure the needed legislation."

President F. Wilcox then appointed N. E. France, of Platteville, as said committee, and so to act. On July 17, 1896, I sent 400 printed circulars to Wisconsin bee-keepers, with a request to return by Aug. 1 the printed crop report. Soon the reports began coming, and still continue. As many had but commenced their honey harvest, they could only give a partial report; but from the hundreds of reports received, I learned there was a little over 45,000 colonies of bees in Wisconsin, that produced a harvest of 2,250,000 pounds of honey, and 30,000 pounds of wax—at present wholesale prices worth a total of $160,000. Some 600 cases of foul brood were reported, scattered through 10 counties, and complaints of carelessly selling diseased honey and bees wherever a market was found, thereby spreading the disease.

I at once wrote to foul brood inspectors in different States and Canada, asking for a copy of their foul brood laws, and for each one to suggest where, by their experience, their law could be improved.

September 24 I sent 200 circulars to Wisconsin bee-keepers, with a total of reports to date, and a few of the letters received, and a form of foul brood law that would best suit the demands for Wisconsin. Many bee-keepers have either seen their legislators, or written them, of the much-needed legislation, and up to this date not one voice has been heard against the support of the Bill.

The Bill was introduced by my Assemblyman, and I was allowed to plead our case before the legislative committee.

I wish to warn bee-keepers to be cautious in buying bees, queens, honey-packages or supplies, from locations where foul brood exists. Last year one bee-keeper of Florida lost 300 colonies with this fatal disease, and in an adjoining county another lost 200 colonies. Then Cuba, near by, lost 1,200 colonies in one county. So I might enumerate. As much of this Southern honey finds market in our Northern cities, I caution you not to buy any more second-hand or emptied honey-packages.

N. E. FRANCE, *Com.*

Mr. George W. York, editor of the American Bee Journal, exhibited some fine alfalfa honey from Utah, and a sample of deep-cell comb foundation that was ahead of any foundation ever seen by any member present. On motion, Mr. York was elected an honorary member of the Society.

Next was the following essay by Mr. York, entitled,

MARKETING HONEY FOR 1897.

This is an up-to-date subject. It might well be called an antedating subject, as its direct application cannot be made until about six months hence—perhaps next July, or later. But it is always well to plan in advance—to think out our line of work, and then afterward be prepared to work out our "think." This applies as well to marketing the honey crop, as to other subjects.

But what about marketing, or disposing of, the honey crop of 1897—*this very year?* Of course, we can't well sell a thing before we are certain the thing itself will be in hand when the proper time arrives. But, supposing you *are* favored with a bountiful honey crop this year, the question is, How will you market it to the best advantage?

Some of you may decide to sell it through city commission-men—and then, some of you will not try that thing again! A burnt child dreads the fire. And yet fire is a good thing, if it be of the right kind and properly used. But gun-powder or other hot explosives are quite unsafe as a means of conveying warmth and comfort. So beware of the boasting, bombastic and over-friendly city commission-men, for finally they are much like strong drink—"At the last it biteth like a serpent and stingeth like an adder." The "stings" of crooked commission-men are infinitely worse than bee-stings, as some of you have doubtless discovered to your sorrow.

But please remember that there are *some* trustworthy commission-men, and perhaps many of you can do no better than to continue to patronize them. At least one reliable Chicago honey commission-man has customers that purchase of him by the carload. He has created a demand. In one day, I understand, he disposed of three carloads of honey without so much as touching it himself. But it has taken years of constant effort to develop such a demand. Another thing, that particular dealer knows all about the honey-business, from the bottom up, and all the way back again.

But before any definite plan of marketing can be decided upon, I feel that another question needs settling. I refer to the retail honey trade. How can we best reach the millions who should be eating pure honey daily, but who seldom see it now or know what it is? This is a question that I have pondered over quite a good deal, and I am just now doing a little experimenting on it in Chicago. I find that the four or five thousand grocery stores there sell very little honey. Even the large retail stores, in the heart of the city, with their busy grocery departments, have little call for honey. And why is this? Why do not people ask their grocers for honey as they would ask for maple syrup, sugar, or any other good thing to eat? I can give you one reason in a single word, *Glucose!*

Why, do you know, the mass of people—particularly in cities—have been treated to such big doses of glucose, and so often, under the name of "Honey," that they fear to buy anything so labeled? They have bought the distasteful, diabolical stuff, and individually have said, "*Well, if that's* HONEY, *I don't want any more!*" And *I* don't blame them. I have seen so much of honey-adulteration in Chicago, that sometimes I am almost discouraged and disheartened on account of it.

I may be getting away from my assigned "text" for this "sermon," but, if so, I am sure you will pardon me, for I feel that this adulteraton question is so closely connected with the successful marketing of honey that it cannot be easily waved aside. I am deeply interested in this matter. I want the consuming public to have a good chance to buy the pure, unadulterated product of the bee-hive, and not be continually imposed upon and defrauded by a mixture of one-tenth honey-comb and nine-tenths corn-juice, concocted in some dark, dingy, and dismal city cellar!

Just now, I am leaning toward the conclusion that in order to induce the grocery dealers to take more interest in selling honey, the producers will have to put up extracted product in small tin receptacles (say pints and quarts), and put each section of comb honey in a paper box (carton), and then crate each in one and two dozen lots. I think that screw-capt tin cans, holding 1½ and 3 pounds each, can be purchased in quantity, at 3 and 3½ cents, respectively. The cartons perhaps can be had, nicely printed, at ½ cent each. The tin packages should also bear upon them a label, showing only the producer's name, kind of honey, and brief directions for liquifying in case of granulation.

The greatest objection retail dealers have to honey is its general stickiness, and tendency to ooze out in one way or another. Hence the extracted honey should be in screw-cap cans, and the comb honey in a pasteboard box, or carton. Both are then safe and convenient to handle. But both must be of the *best quality* possible. And it will not do to put half-filled sections, or broken comb, into the cartons. Every thing must be strictly fine, if it is desired to secure and hold a demand. People generally are willing to pay for what they get, but they also want to get just what they pay for.

Again, it is possible that one bee-keeper might be selected to accompany large shipments of honey to different cities and there dispose of it; or he could act as an advance agent—go on ahead with exact samples, and arrange all details of the sales before the honey arrives. At least, that would be more satisfactory than to send the honey unaccompanied by any one of the interested shippers. All know that it is always more satisfactory to deal personally than by correspondence.

But, after all, it may be that the only perfect plan of marketing honey will be found in an in imitation of the city milk-dealers' system. It might be varied somewhat by having a central place in each city where the honey could be stored, and from which storehouse delivery wagons could get their daily or weekly supply. A city could be divided into districts, and each assigned to a salesman who would visit every home or office, and endeavor to induce purchases. Of course, it would be necessary to adopt a distinctive brand, or copyrighted label, so that consumers could be educated to accept only honey-packages bearing an approved label or brand.

Certainly, all this means a long and constant campaign of honey education, but in the end I believe it would pay well. I wish it could first be tried in a smaller city than Chicago. Why not in your own beautiful and thrifty city of Madison? If the system should prove a success here, it could be transplanted to other cities, where it doubtless would flourish. It needs patient effort on the part of interested salesmen, who understand thoroughly the various uses of honey, and who could simply compel all grades of humanity to at least give the honey *one trial*. Having placed that one sweetened entering-wedge, I believe thereafter no further difficulty would be experienced in making repeated sales. Pure honey always "tastes like more."

Perhaps this plan is worthy your consideration, and perhaps not. I leave it with you.

In conclusion, I would say that if anything I have said shall lead to a discussion that will result in something definite and helpful to you all, I shall feel well repaid for having come to your meeting. While to meet and greet the splendid bee-keepers of Wisconsin is indeed a delightful pleasure to me, yet to be able to help you to a more profitable and successful business, and to aid in the least in placing so delicious and healthful sweet as honey upon every table in the land, I would count a far greater honor. GEORGE W. YORK.

Chicago, Ill., Jan. 25, 1897.

The above caused an interesting discussion on size and kind of packages, retailing honey, etc.

A recess was then taken, when Mr. R. H. Schmidt exhibited his "New Champion" bee-hive, and Mr. Van Allen showed one of the Van Allen & Williams 4-frame reversible extractors.

The following 14 members then paid their dues—50 cents each: J. Hoffman, F. Wilcox, N. E. France, H. A. Winters, C. Spangenberg, H. H. Brown, J. J. Ochsner, H. Lathrop, R. H. Schmidt, Chas. Hildreth, A. G. Wilson, Van Allen & Williams, John Hanko and W. J. Robinson.

QUES.—"Will it pay us to join together to buy and sell our supplies and produce?" Pres. Wilcox spoke of the good such a union was to bee-keepers in California and Arizona, in saving freight, but as we were so near great markets, and live so scattered, it would be doubtful if such would give satisfaction in Wisconsin.

Amalgamation was discust at much length, which resulted in all except one voting in favor of it.

Various conveniences in the apiary were mentioned. A hive-cleaner was described by Mr. Huffman. Position of hives in the yard, kind of stands for hives, temperature for cellars while wintering (40° to 45°), were all talkt of.

QUES.—"Which is the more profitable, comb or extracted honey production?" A vote was taken, and the majority were for extracted honey.

A motion was unanimously carried that the Wisconsin Society does not indorse the importation of Apis dorsata by the Government.

The second day's session was called to order by the Secretary, and Mr. York chosen to act as temporary chairman. As the Secretary had to appear before the legislative committee to support the claims for the Bills introduced, Mr. Lathrop was appointed Secretary, *pro tem.*

QUES.—"Are we satisfied with the grading of honey known as North American grading?" A long discussion followed, all agreeing that the grading should be simplified—more like white, light or medium, and dark.

QUES.—"Can unfinisht sections be used and produce a good grade of honey?" Pres. Wilcox said he did so.

Mr. York reported that 2-pound sections are now out of the Chicago market, and that dealers buy comb honey by the pound, and retail it by the section. Sections 7-to-the-foot are well liked.

QUES.—"What shall be done with unfinisht sections?" Sell all possible, and extract the rest, or let the bees take it out, and save them for next season.

On liquifying extracted honey in barrels, Mr. York said he placed a barrel of honey on its side, on a steam radiator, made of steam-pipes, and as it melted the honey ran into a large can below. He takes a whole barrel head out, and when sufficiently liquified to do so, he dumps the whole barrel of honey into the can, then puts the can on the radiator where the honey is soon thoroughly liquified.

The election of officers resulted as follows: President, F. Wilcox; Vice-President, Jacob Huffman; Secretary, N. E. France; Treasurer, Harry Lathrop.

The Secretary reported that he had been before the legislative committee, pleading for the two Bills—foul brood and sweet clover; that the committee would not make a final report for a few days, but he was told by one of the committee that they would likely recommend sweet clover stricken from the noxious weed list. The Secretary hoped to be able to report soon favorably on the foul brood Bill.

As many had to go home soon after dinner, the convention adjourned *sine die*. N. E. FRANCE, *Sec.*

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Management for Comb Honey.

1. I have a large double-section super. I will cage the queen, place her in the middle tier, with a good swarm. Will it be any good?

2. I have a double hive, and will put a division-board, bee-tight, and a queen perforated zinc over the brood-frames, and put two swarms into the same, with a 72-section super over them. Will that do? G. C. D., Iowa.

ANSWERS.—1. You may get some good work done in that way, but very likely the same swarm might do better without having the queen caged. Even those who favor caging a queen of a colony would hardly cage the queen of a swarm.

2. That's a little on the plan of the Wells double-hive method in England, only in that case there is not a close division-board between the two colonies, but a board with holes burned through too small for the bees to pass. Some claim success with the Wells plan, while others say they'd get more honey by keeping the two colonies separate. Your plan might be worth trying. I should say at a guess, that with strong colonies you wouldn't gain anything, but weak colonies would do better if kept in separate hives.

Wintering Bees in a Cellar Under a Kitchen.

I have at present 44 colonies of bees on the summer stands, in single-walled hives, with super on top and filled with chaff. So far all are alive and seem to be wintering well.

Last winter I lost one-half of the colonies on the summer stands, but they were not in as good condition as they are this winter. Now for the questions:

1. There is a kitchen attacht to our main house, on the north side, 20x20 feet, under which I can make a cellar five or six feet deep with very little work. We live in the kitchen all winter, and have two stoves in it with fire. The cellar would not be wet—no water ever gets in. What do you think of such a cellar to winter my bees in?

2. Would I better make the cellar and try to winter my bees in it, or hold to the summer stands?

3. Would the noise above, in the kitchen, disturb the bees any? and would the stove in the kitchen help to warm the cellar below?

4. Would the moisture thrown out by the bees below have any bad effects on the health of persons living in the kitchen above?

5. How should the bees be set in such a cellar—close to the ground, or raised 10 or 20 inches? and how shall I prepare them, that is, the hives with bees in?

If I get an answer favorable to the cellar, then I will prepare it for my bees for next winter's use.

P. W., Hobbie, Pa.

Answers.—1. I see no reason why it may not make a good bee-cellar.

2. That's a hard question to answer. I winter my bees in the cellar, and yet I can't help the feeling that where a colony winters well outdoors it may be a little stronger to take hold in the spring. You can tell a little better when you see how your bees come out in the spring. If you lose as many as you did last winter, best take to the cellar. But the forepart of the winter was so mild that even if all live it will not be a severe test. The most satisfactory way would be to try part in the cellar and part out.

3. Theoretically, the noise ought to be bad for the bees, but practically I could never see that it did any harm. A fire overhead makes a decided difference in my cellar.

4. If the cellar is kept properly ventilated—as it should be for the benefit of the bees—no harm will come from it to the people living over.

5. It doesn't make an immense difference. Probably a foot from the ground would be better, but as that takes more room mine are raised not more than three to six inches. The only preparation mine get is to have a space of two inches under the bottom-bars of each hive, and a great, big entrance.

Two Colonies in One Hive—Clipping Queens.

1. I united some bees by putting one hive-body on top of another. Would I better take the one off in the spring? or how would it do to leave them together? How would it do to use two queens, one below and one above, with bee-zinc between the upper and lower stories? or would I better use one queen below and use the upper for extracted honey?

2. I have been clipping the queen's wings, to some extent, but I don't know whether I like the plan or not. It hurts the looks of the queen, if it does no other harm. I like to see the bees swarm, and it is a pleasure to me to hive them. Put in a frame of brood and they will stay there all right.

N. M., Iowa.

Answer.—1. What is best to do depends on circumstances. Quite possibly you may find, in some cases at least, and perhaps in the majority of cases, that where two colonies were united by putting one hive over the other, there will be only one of the two queens left in the spring. This will be the more likely to occur where the two colonies were not very weak. If both queens are left you will likely find both colonies so weak that it will be more profitable to unite all in one story, removing the poorer queen if you have any choice. Remember, it's a poor plan to have a lot of weaklings. It may be well to say, however, that where colonies are weak from what is called "spring dwindling," they don't seem to do any better for uniting.

It might be some satisfaction for you to try the plan of having a queen in each of the two stories, separated by a queen-excluder, but you will probably find that when colonies are strong enough to remain separate in two stories, one over the other, that they're strong enough to do as well, or better, to be on separate stands. The very fact that you united two colonies last fall is pretty satisfactory evidence that they were weak enough, so that the very best thing you can now do is to get them together in one story. It may be a good plan to get all the bees and brood together in the upper story, leaving the lower story without any excluder over it, then the bees can work down into it when they need the room. The size of the hives has something to do, of course, with what is best to do in this direction. If there is room enough in the one story for the brood-nest, your plan of letting the bees stay in the lower story, with the upper one for extracting, an excluder between, may bring good results. However, the opinion seems to be gaining ground that the best extracted honey is obtained from combs that have never been used for breeding.

2. If you are always on hand to take care of swarms, and enjoy sufficiently the pleasure of seeing them swarm, it may be best for you to leave your queens unclipt. So far as looks are concerned, you will hardly notice the change in looks if you cut away entirely the larger wing on one side, leaving the smaller one entire.

* * *

Closed-End Frames and Heddon Hive.

Last evening eight of your readers and myself were discussing the closed-end frame and the Heddon hive, pro and con. We would be very glad to learn a little more about these points, and as it is fast approaching the time when our plans must be laid out for next season, can you give us the information, or tell us where it can be found, particularly as to the advantages and disadvantages of the closed-end frame as used by Mr. Heddon?

Minnesota.

Answer.—The book "Success in Bee-Culture," by James Heddon, gives probably the fullest description that can be found of the Heddon hive and its frames. Mr. Heddon himself would no doubt give you special information such as you desire, and he states in his book that he has retained the advantages without the disadvantages of the closed-end frame. One advantage, as he uses them, is that by means of a thumb-screw the end-bars can be all crowded tight together so the section of the hive can be reverst without removing the frames. A disadvantage that some have found is that the thumb-screws do not always work well, the shrinkage of the end-bars making them loose, and the swelling making them too tight.

* * *

When to Remove Winter Packing.

I have nine colonies of bees on the summer stands, packt as follows: In the fall, on the approach of cold weather, I removed the super, put a ⅜-inch board over the brood-chamber, the size of the outside of the hive, then put a box over all, four inches higher and two inches larger on all sides than the hive, filling the sides and over the brood with sawdust, and putting a rain-proof cover over all. When should I remove the packing and put on the quilt? also, should I have put on the quilt last fall? Do you think the quilt is sufficient protection over the brood-chamber in this climate (northern middle Tennessee).

A. B. Ginner.

Answer.—Better leave the packing on too long rather than remove too early. If you know that bees have plenty of stores, and they appear to fly strong in numbers, there may be no need to remove the packing till about the time you want to put on supers. At any rate, leave it till fruit-bloom, unless there be some special reason to the contrary. Opinions differ as to leaving on the quilt in winter, perhaps the majority removing it. A quilt is usually well covered with propolis, and gives little chance for absorption or upper ventilation. But with strong colonies and abundant opening below, there may be no need of upward ventilation. With everything glued up tight overhead, if the entrance is very small the bees will not get enough air, but the tendency nowadays seems rather toward larger entrance below without so much regard to what is above.

In Tennessee bees might go through a winter well with no protection except a quilt and the board cover, but they might do better with more covering over them. The experience of those around you, and especially your own experience, will be a safer thing to go by than the opinion of one who has very different winters from yours. It may be well to say that quilts are not used to the same extent as formerly, many having cast them aside entirely after having used them extensively. A flat board directly over the hive or over the supers is now the general rule.

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

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Editorial Comments.

New Bee-Appliances of various kinds are continually springing up, or improvements upon old implements are being made. In this issue we publish illustrations and descriptions of a frame end-spacer, and next week a hive and parts. A few weeks ago we showed in these columns a chaff-hive arrangement. We are glad thus to place before our readers new or improved things in their line, any of which can be secured through their own supply dealer. Our effort, then, to acquaint our readers with improvements in the bee-keeping line, is at once an advantage to them, and also to the manufacturers and dealers who patronize our advertising columns.

We wish to say that if any of our regular advertisers will furnish us with the engravings of their new or improved apiarian implements, we will be glad to use them in connection with a short description.

◆

Honey for Curing Smallpox.—On page 40 we publisht an item which said that in a certain city in Mexico, honey had been used as a cure in the treatment of smallpox patients. We were not sure as to the facts in the case, and requested verifications. In response to that invitation, we have received the following from one of our Mexican subscribers:

> MR. GEORGE W. YORK, Chicago, Ill.—
>
> *Dear Sir:*—I saw your statement about the honey-cure for smallpox, and I can tell you that it is really true. Here in Mexico that disease comes nearly every year, when the rainy season finishes. This year it has been pretty bad in some places. The authorities are trying hard to get rid of this malady, but the Indians are very little educated. In nearly all the papers the honey-cure was publisht, and for this reason I sold my honey as soon as I got it out.
>
> Yours respectfully, F. BUSSLER.

The report stated that "administering honey diluted with water to smallpox patients, the pustules of the worst variety disappear, and the fever is immediately diminisht."

◆

Warnings to Bee-Keepers.—Gleanings for Feb. 15 suggests that all bee-supply dealers put in their annual catalogs a warning note to bee-keepers, not to ship honey to irresponsible commission firms. We want to endorse that suggestion, and also the one in the following about every bee-keeper affording to take a bee-paper:

> Altho the bee-papers have cautioned their readers over and over again not to ship their honey to new and untried firms, it is evident that many bee-keepers, notwithstanding, are doing it right along, and are suffering the consequences. The probabilities are that they do not take *any* bee-journal. Perhaps they think they cannot afford it. After they have lost several hundred dollars through an irresponsible or dishonest commission house, *perhaps* they will begin to think they *can* afford it. Only $1.00 a year invested in a bee-journal will save several times that amount in valuable kinks learned during the year, and will enable them to fight shy of the rascals engaged in the business of selling honey.
>
> Usually, firms promising to do extraordinarily big things are the very essence of rascality, and the more aggravating because they are sharp enough to evade the law. Well, it would not be a bad idea if dealers and manufacturers would advise their patrons in a similar way in their catalogs. Let us leave no stone unturned to post bee-keepers on the ways of these "snide" concerns.

Several former readers of the Bee Journal have written us that they shipt honey to commision firms that we had exposed during the time they did not subscribe for this journal. An extensive Wisconsin bee-keeper stopt reading the Bee Journal for about four months last year, thinking he could economize thereby. Well, he shipt his honey to a snide firm in Chicago, and lost just $30. Or, in other words, he paid that amount as a penalty for dropping the Bee Journal, for, during the time he failed to get the paper, we exposed that fraudulent firm, but of course the bee-keeper didn't know that until it was too late. He now takes the Bee Journal, and we presume will do so as long as he keeps bees. "A word to the wise," etc.

◆

The Illinois State Convention was held at Springfield last Wednesday and Thursday, Feb. 24 and 25, and it was our privilege and pleasure to be there, the President, Dr. Miller, accompanying us.

The first session was held Wednesday forenoon; there was not a large attendance. Various State agricultural conventions were held at the same time, and particularly the Illinois Farmers' Institutes. Prominent workers in the different lines of agriculture were present, and gave addresses on important topics. Wednesday afternoon the ladies had charge, and the Representatives' Hall was crowded to listen to the very able papers prepared by the leading women. There was one that we wish to specially mention, on the subject of "The Farmer's Table," by Mrs. Senator Dunlap, of Champaign county. It was a charming paper—much like its author.

In the evening the work of the several State agricultural associations were outlined by representative men, the Bee-Keepers' Association being in the hands of Dr. Miller. He spoke at least 20 minutes, paying special attention to the efforts of bee-keepers in this State to get an anti-adulteration law, and urged the legislators, who were present, to do all in their power to secure the passage of such a righteous measure. Dr. Miller's talk (and answers to questions that were propounded by interested farmers) was admitted to be the most entertaining part of the evening's program. One man, who evidently "wanted to know, you know," askt the Doctor to describe his system of bee-keeping! Of course, that was a simple question, and we presume the querist thought it could be explained in about six words. He was told that if the Doctor had five hours to talk he could just begin to tell a little part of his system of bee-keeping.

At one of the Farmers' Institute sessions Dr. Miller was invited to sing, and at another session he gave a comic reading. Both were greatly enjoyed, and served to break the monotony of long papers. One criticism we would make of the Institute programs is, too long papers and too short discussions, or often no discussion at all.

In the afternoon when the women gave the program, and during a performance, a Representative from the northern part of the State workt his way toward the front, with a cigar in his mouth, and there lounged over a desk, facing the audience. When the speaker finisht, several fellows in the rear were so discourteous to the ladies as to call the name of the intruding Representative in question, and he, evidently thinking it was really desired to hear from him, promptly proceeded to deliver what we suppose he thought was a very elegant production. He didn't seem to have sense enough to see that he was being made a fool of, and also acting very ungentlemanly in that he was not on the program at all, but simply pusht himself into prominence. It had every appearance of being a "put up job" on the ladies, but one that resulted as it should, in the lowering of that Representative in the estimation of the sensible people present. One would think that every legislator of the great State of Illinois would at least possess common sense. Many of them do, as we happen to know, but evidently there are a few who do not.

We want to urge bee-keepers everywhere to take a greater interest in farmers' institutes, horticultural meetings, etc. It will pay in many ways to keep in touch with our friends; and often it is found that if they are not our friends, it is because of some misunderstanding of the honey-bee and its work. Then, by meeting with them, opportunity will often be given to clear up any possible erroneous impressions that may exist, and thus help to create a better feeling among those who should be the best of friends.

We hope soon to give a full report of the Springfield bee-keepers' meeting in these columns. The following were elected as officers for the ensuing year:

President, Dr. C. C. Miller; 1st Vice-President, J. Q. Smith; Secretary, Jas. A. Stone; and Treasurer, Chas. Becker.

Beeswax and Honey Imports and Exports.—During the year 1896 there was imported into the United States 273,464 pounds of beeswax, valued at $75,970; and exported 222,612 pounds, valued at $65,844.

During the same year there was imported 79,985 gallons of honey, valued at $30,609; and a value of $90,969 exported. These figures are according to Circular No. 1, recently issued by the Department of Agriculture at Washington, D. C.

The California Honey-Industry.—The following paragraphs are going the rounds of the California newspapers:

> Southern California leads the world in the production of pure honey, and Orange county is one of the favored spots where the bee-keeper is most abundantly rewarded. The present season has been an unusually favorable one for this important industry, and the honey crop promises to be very large. The Los Angeles Journal recently publisht an article regarding the honey-industry, which is as follows:
>
> The American people are proverbially partial to sweet things, and any one who doubts the truth of the tradition should consult the statistics of the consumption of honey in the United States. Last year there was produced in this country 50,000,000 pounds of honey, and most of it was consumed by our own people.
>
> This State can boast of having nearly 5,000 bee-keepers within its borders. A large proportion of these men are located in Southern California. They own, on an average, 150 colonies apiece.
>
> In Arizona there are estimated to be 300 people engaged in the bee-industry, having about 40,000 colonies.
>
> The shipments of honey from different points in California in 1896 amounted to 38 carloads, or 758,000 pounds.
>
> The bee-business is evidently destined to expand into one of the greatest of our California industries, and is already rivaling the production of fruit as a source of profit.
>
> The amount of capital invested in the bee-business in California, exclusive of land, is $450,000. The people engaged in the business spend annually something like $75,000 for supplies, and about $70,000 for labor.
>
> In 1896 Southern California sold 5,000 tons of extracted honey, and a proportionate amount in the comb.
>
> Southern California, with her wealth of flowers and other natural advantages, should be the greatest honey-producing section in the world. With proper legislation to protect the consumer against adulterated honey, a demand for the genuine article would be more than equal the supply.

The showing made for California is surely very fine; and ¾ of a million pounds is a lot of honey for a poor year like 1896 was reported to have been in that State.

Then, 5,000 bee-keepers in one State is a good many. If there are so many as that in California, it is pretty safe to say that not more than one in ten takes a bee-paper. Some missionary work needs to be done there as well as elsewhere. It would seem that *every* bee-keeper worth the name could afford two cents a week for current reading matter.

New Subscribers in March.—There is no better month in the whole year to get new subscribers for the Bee Journal, than this very month of March. See the new premium offered this week. Every reader ought to have a copy of the book described on page 138. We can send all the back numbers from Jan. 1, for awhile yet, to new subscribers, if it is requested. Let us see how many new subscribers can be sent in during March. Do your best to help us on in the work we are trying to do in behalf of bee-keepers.

The Weekly Budget.

MR. JACOB HUFFMAN, Vice-President of the Wisconsin State Bee-Keepers' Association, will speak on the subject, "Keeping Bees for Profit," at the 11th annual closing of the Wisconsin Farmers' Institutes, to be held at Appleton, Tuesday, Wednesday and Thursday, March 9, 10 and 11, 1897. Mr. H. is the first on the program for Wednesday, at 9 o'clock. Every bee-keeper and farmer who can possibly arrange to be present, ought to attend the gathering at Appleton. For further information concerning the Wisconsin Farmers' Institutes, address Mr. Geo. McKerrow, Supt., Madison, Wis.

HON. GEO. E. HILTON, of Michigan, received several very complimentary notices in his local newspaper lately. Besides referring to his steel-front building to be erected this year, and "something that will be highly creditable to the town as well as to Mr. Hilton," it says this in regard to his bee-supply business:

"It would be well worth your time to go through George's store-rooms and see the fine manner in which his goods are put up for shipment to his hundreds of customers in Michigan and other States. Mr. Hilton's promptness and honorable dealing have built up for him from a small beginning a pleasant and profitable business. In addition to his supply business he now has over 200 colonies of bees, and produced, last season, over 10,000 pounds of honey."

PROF. A. J. COOK, we are happy to say, informs us that Pomona College has just received an endowment of $100,000; and also a further bequest of $10,000. Those who are at the helm feel certain that they see $30,000, and probably $60,000 more, almost in sight. This, with the astonishing increase of students the present year, make the friends of Pomona College very happy. Already that great educational institution is receiving the highest praise from several of the leading universities of the country, where its students have gone for graduate work. No wonder Prof. Cook feels hilariously happy, for is he not one of Pomona's honored instructors?

MR. H. J. CATER, of Libertyville, Ill., gave us a short call recently. Mr. Cater is connected with the Illinois State Fair, having in charge the department in which are the bee and honey exhibits. We are glad to say that while the total cash premium list of about $42,000 in 1896, has been cut down to about $30,000 for 1897, the bee and honey department, through Mr. Cater's kindly aid, received an increase of $180, thus making $464 now offered in the apiarian list. Bee-keepers of Illinois should show their appreciation of such generosity by laying their plans to make the best exhibit this year that was ever seen anywhere. It was fine last year, but that of 1897 must be finer.

☞ See "Bee-Keeper's Guide" offer on page 109.

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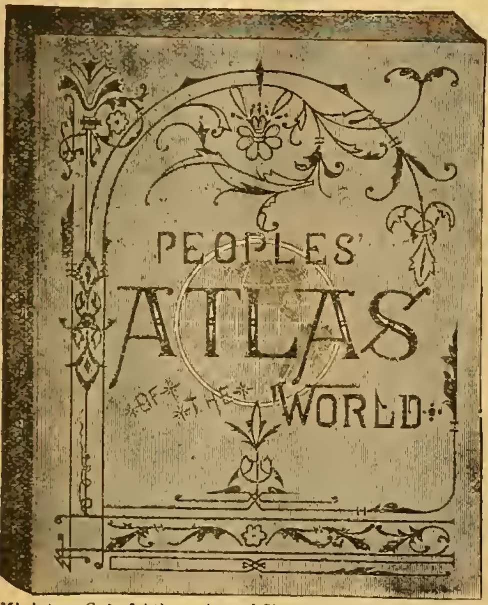

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Question - Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Room for Queen in Producing Comb Honey.

Query 45.—1. In working for comb honey, is it best to give a queen all the room she will occupy?

2. If you think it best to restrict, should the restriction be all the time, or when, and how much?—KAN.

Jas. A. Stone—1. Yes.

Rev. M. Mahin—1. I think it is best.

Prof. A. J. Cook—Too much to answer here. So much depends.

Emerson T. Abbott—1. I give her all the room there is in a one-story 8-frame hive.

W. G. Larrabee—1. Yes. I would give the queen at least 10 frames all the time.

G. M. Doolittle—Nine Gallup or 8 Langstroth frames are about right for comb honey.

Chas. Dadant & Son—1 and 2. Yes, if you restrict her, let it be only towards the end of the crop.

Eugene Secor—1. Early in the season, yes. During the honey-flow, no. 2. During the honey-flow.

C. H. Dibbern—1. I usually let the bees manage that themselves, and don't know what would be best.

P. H. Elwood—1. Give room for the queen and bee-bread in the main department. Give room for the honey above.

R. L. Taylor—1. No. 2. Restrict her one month before the end of the principal honey-flow, to about five Langstroth frames.

Dr. J. P. H. Brown—1 and 2. Generally I do not give her all the room she will occupy—not over 10 Langstroth frames.

H. D. Cutting—1. In working for comb honey I want an 8-frame hive, and give the queen the entire brood-chamber.

J. A. Green—1. As a rule, it is not. 2. Restriction must be according to circumstances, to explain which would require a long article.

Dr. A. B. Mason—1. Leading comb-honey producers are not agreed on this matter, and a good way for you to do is to experiment a little.

Dr. C. C. Miller—1. Theoretically, I should think yes. Practically, I'm afraid no. 2. I doubt if it's best to restrict at any time except in the harvest, then restrict to 8 frames.

E. France—1. Yes, if you have a continuous honey-flow. But if the honey crop is short—say only basswood—you will get more honey if you stop the egg-laying 10 or 15 days before the basswood opens.

Mrs. L. Harrison—1. I should think so. 2. I don't think that with the price honey has brought for several years past, such handling pays. I leave the lower story alone, and then the bees will have plenty of stores for the winter.

A. F. Brown—Before the surplus flow opens, give all the room, and *more*, than she can possibly occupy; for my locality

(Florida) space equal to a two-story Simplicity 8-frame hive. At the opening of the flow reduce the space to the capacity of 8 frames, and give sections. When the sections are removed, return the comb space that was removed.

Mrs. J. N. Heater—1. During the harvest time there is always a race between the bees and the queen to get possession of the cells, and I do not think the queen ever secures more than is needed to keep up the strength of the colony. 2. I do not restrict.

J. M. Hambaugh—1. If your honey harvest lasts all summer, yes. Otherwise, restrictions systematically administered might be advisable. Study your conditions and surroundings, and read "Dadant's Langstroth Revised," or "A B C of Bee-Culture," or both.

J. E. Pond—1 and 2. Experience is the only guide in this matter. Seasons vary—in fact, everything varies in bee-keeping, so that it is impossible to lay down any general rule. Mrs. Tupper said years ago, "Bees do nothing invariably," and no one ever made a truer statement.

G. W. Demaree—1. No. One set of 8 or 10 Langstroth frames, or their equivalent in comb space, is about right if you want your bees to come out of the harvest in good condition. Too large comb space for the queen will diminish the honey crop, and too limited a space for the queen will damage the colony.

General Items.

Results of Last Season.

Last season I had two tons of extracted honey from 75 colonies, and have all sold in the home market at 9 cents per pound, to dealers, they selling at 12½ to consumers.

Tell our good Florida friend, Mr. A. F. Brown, not to be too hard on us "Tar Heels" on the comb-honey business. We are not so favored as he, with big yields to justify us in working for comb honey. We indorse, though, much of his talk in that initial article. We had the pleasure of a handshake at our bee-congress at Atlanta, Ga. A. L. Beach.

Mecklenburg Co., N. C., Feb. 2.

A Canadian Report for 1896.

I had 11 colonies in the spring of 1896, increast to 35 by natural swarming, altho I had 39 swarms from the 11 colonies; they would come out two or three at one time from one colony and cluster together. From one colony I got 5 swarms and 100 pounds of extracted honey; from another, 6 swarms and 50 pounds of honey. From all, I took 1,500 pounds of extracted, and 75 of comb honey, and put away 24 colonies in good condition. I winter them outside, packt with chaff. Edward Koll.

Ontario, Canada, Feb. 2.

Hunting and Trapping—Close Call.

I have just returned from my annual hunting trip. There were three of us with a camp outfit and seven good hounds. We left Nov. 11, 1896, and went up White river about 100 miles, where there was lots of game. Our catch and kill were, as nearly as I have a record: 17 deers and 3 bears. I did all the trapping, and caught 278 raccoons, 117 opossums, 64 minks, 8 otters, 7 beavers, and I can't tell how many ducks and wild geese, but a good wagon load, I should judge.

I arrived home, and in looking over my

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that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polisht on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equipt with best machinery, all combine to enable this firm to furnish the

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☞ A sample of either honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

Now it seems to us here is a splendid chance for any bee-keeper to supply his home demand after his own crop is all sold. Or, why not begin now to create a local honey-trade? Order one 60-pound can first, and start out among your neighbors and friends, and see what you can do. You ought to get at least 12 cents per pound in 5-pound lots, or 40 cents for 3 pounds. Some may be able to do even better than that, though we think that enough ought to be sold at these prices to make a fairly paying business out of it. Give it a good trial. Push it. It may grow into a nice winter's work for you.

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ARTHUR J. COLLINS, Moorestown, N. J.

three apiaries of bees, of over 280 colonies, I found them in first-class condition, all wintering well, with only 4 dead, that had been robbed.

Last Monday morning, just before daylight, I heard a cracking outside, and started from my bed to go through the next room, and when only about 5 feet from the center door. down came a big elm tree, 3 feet at the roots, right across my house, only about 7 feet from where my daughter was asleep. It crusht that part of the house into kindling wood, and broke up everything inside; but the room we were in was not hurt the least bit. The tree where we sawed it off was just 24 inches where it hit the house.

Long may the old American Bee Journal live. I would not be without it if I kept only one colony of bees. I think Mr. Peck's excuse for not getting new subscribers is a very weak one. I shall try to get all the new ones I can, and I don't ship any honey. I have a home market at a good, living price, and let any one see my copies of the Bee Journal that wants them.

J. H. Siple.

Bolivar Co., Miss., Feb. 12.

A Pretty Young Bee-Keeper.

I thought I would write to let you know I am well, and my bees, too. I had a colony last spring; it did not swarm, and I got 95 pounds of extracted honey, and my colony was queenless all summer. Father gave them many queens, and they killed them. He gave them queen-cells, and they tore them down, and at last he doubled them up for me, and gave me the colony that he doubled mine with. I will do my best next summer. I am eight years old. I can help father a lot now in the bee-yard and honey-house.

F. Banker.

Brown Co., Minn., Feb. 18.

Cedar Hives All Right.

I should have written before this and explained that cedar hive trouble spoken of earlier in the season. The fact is, the cedar hive is all right. I used several last season, and experienced no trouble in the least. They are a nice, light, and well-made hive, and we are all well pleased with them. If my neighbor's bees left the hive I will venture that he had them in the sun.

At this writing our bees are all right, and I think they will come out strong. I had good luck with the two Italian queens I sent for to an Ohio breeder. I now have some nice Italian bees from them.

I can't get along without the American Bee Journal.

S. W. Bingham.

Latah Co., Idaho, Feb. 5.

Taking Bees from a Tree.

I read an article in the Bee Journal on taking bees from a bee-tree. I think the writer was right, but I know of a handier way, if the tree is not off too far to take the piece home. I will tell you how I helpt take a bee-tree.

A friend of mine and I found a tree off about twó miles over the Rocky Mountains, through the forests and over windfalls. We cut the tree down, and when it fell it broke down a spruce tree about four inches in diameter. went through the tops of trees, broke off limbs, and broke the tree almost in two. We went to the top, but could not hear a sound. We thought that we had workt for nothing. We lookt into a hole in the tree and saw some white comb. We chopt into the side of the tree and found lots of comb, so we chopt a little further and found some more comb. We chopt in a few more places, and broke the ax helve. and could not make a very large hole. We took out the combs and shook off the bees; they clustered up in a bunch, and we put them into a basket with a table-spoon. We got about half of the bees and went home.

I took an 8 frame hive and put the combs in, and then shook the bees down in front of the hive, and some went in, but came out again. They flew around in the air, and I thought they would alight on an apple-tree close by, but in about half an hour they went into the hive. The next day was Sunday, so I let them alone till Monday. Then I took a small fish basket and a sauce-dish, and went for the rest, but the sun shone very brightly, and as soon as I disturbed them they flew around in the air. I got only about a quart of bees. The next day I went with a six-quart pail, and a quart dipper; the bees were in a cluster, so I dipt them up. I got the dipper full; but I did not get them all, so I dipt again and got the rest. I went home and poured them in front of the hive, and they went in. They began to rear young bees, and the hive was soon full.

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NGINES

REAR GEAR

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If you do not think this a good way, you can try another, but I advise you to try this way, and if it fails let me know. I have received much good information from the Bee Journal, and am well pleased with it. It comes regularly every Saturday.

Hamilton Co., N. Y. Geo. Porter.

Bees Wintering Well.

Bees are wintering well at present. I have 60 colonies stored in the cellar.

Congratulations to the American Bee Journal, for its noble fight against honey adulterators and dishonest commission-men.

John Stephens.

Porter Co., Ind., Feb. 25.

Appear to be Wintering Well.

My bees appear to be wintering well. I have 48 colonies, including 3 nuclei, in the cellar. They have about 8 weeks to stay inside yet. They were in much better condition last fall than they were the fall of 1895. Last season was a fair one for honey in this section.

Chas. B. Allen.

Oswego Co., N. Y., Feb. 22.

A Young Lady Bee-Keeper!

I will write again to the Bee Journal. I have a colony of bees. Pa and I, and all together, have 72 colonies we are wintering. They are in fine condition so far. I got 120 pounds of honey; all together, we got 6,000 pounds last summer. We sell our honey at 7 and 6½ cents a pound. I like to be in the bee-yard. I turn the extractor for papa. He says I will be quite a help to him next summer. I hope we will have a good crop of honey then. Last year we got a good crop. We got all basswood, which lasted only 12 days, but our bees were very strong in the start.

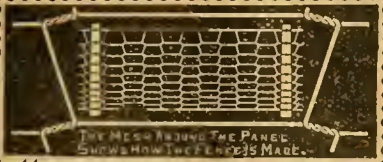
I almost forgot to say we are wintering our bees on the summer stands. We have them packt in chaff. They are 28 inches around, and in the Langstroth hives they are four inches larger all the way around the outside shell. The top is 10 inches higher than in the shell where the bees are, We didn't get all extracted honey; we got 1,000 pounds of comb honey. Our bees are very strong now. When pa went out to brush the snow away from the entrances, some of them would peep out their noses to see if the flowers were in bloom yet, but they are all white yet with about 20 inches of snow on them, and they say there isn't any honey in them, and go back again into their nest.

I am 10 years old. Miss Emma Banker.

Brown Co., Minn., Feb. 15.

Bee-Keeping in Louisiana.

Springtime has come with us down here. Willows are sprouting and peaches budding. I saw the first head of white or Dutch clover on the 18th. It is plentiful, and gives promise of furnishing a good supply of nectar in April and May. Bees have been carrying in pollen and a little honey since the middle of January. Then came the freeze, the thermometer going down to 24 degrees, which stopt them, but they are now flying briskly. The ther-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mometer stands at 73 degrees now, but we expect a little cold weather before winter is over, which will be about March 15 to 25. I lost three colonies since September, 1896. One lost its queen then, and could not rear another, there being no drones; another was killed in the first cold snap, and the third died from want of stores. I have one colony that is a good one. I made it by increase (artificial) last spring. While it did not give me any honey, it gave me about 20 frames of brood, which I used to build up weaker colonies. It workt all summer drawing out foundation and hatching bees, and went into winter quarters with seven frames of golden-rod honey. It was the quietest colony in the yard—I had to wake them up last week. They were so quiet that I thought they, too, had been frozen, but I found that they occupied six frames, with plenty of bees and about 30 pounds of sealed honey. I am going to rear all my queens from that colony this season, and have them fertilized by drones from another colony. I expect to have drones about March 20, as I am working for them now. JAMES B. DRURY.

Orleans Co., Feb. 21.

Wintering All Right.

My bees are in the cellar, and they appear to be doing well. We have had a very mild winter so far. There has fallen considerable snow, but it is so warm that it melts off the roads about as fast as it falls.

D. C. WILSON.

Linn Co., Iowa, Feb. 18.

Good Prospect for 1897.

I have only five colonies of bees, but intend to increase to 50 or 60 as soon as I can. Bees did fairly well here last year, and as there is an abundance of white clover, the prospect is good for 1897. J. I. WHITING.

Allegany Co., N. Y., Feb. 17.

A Bee-Keeping Report.

I first bought a colony of bees in an old box, in 1875, at an auction. It wintered fairly well. Then I made three or four movable-frame hives, and transferred it in the spring. I increast until I had nine colonies; then there came a hard winter and they all died. Then my father-in-law gave me a colony, which I increast to 40. Last spring I had 20 colonies, spring count; they swarmed two or three times apiece; I got only about 100 pounds of honey from the entire lot, fit for market. I think it was too wet. I have four or five hundred unfinisht sections, partly drawn out, that I think I will use next season. I can sell all the honey I can produce around home. I winter my bees on the summer stands. I am using the 8-frame dovetail hive, and H. D. Cutting's 9-frame Star hive. I pack the supers with wheat chaff over a burlap blanket. There are but very few bees in this section, none within five or six miles.

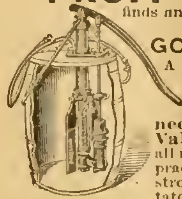
HENRY WITHERELL.

Washtenaw Co., Mich., Feb. 16.

Expensive Honey-Shipping.

On page 105 is an editorial on "More Honey Commission Frauds," where the editor asks when bee-keepers will learn not to ship honey to new firms with doubtful recommendations; and why they do not, before shipping, inquire of the publishers of the bee-paper they take and read. "But perhaps the majority who have been caught don't take a good bee-paper, thinking they know it all, anyway. Well, it may be heartless in us to say it, but, really, if some bee-keepers would rather give lots of their money (honey) to fraudulent commission-men than to pay a small subscription price for the bee-paper, they simply must take the consequences."

Now I hope Mr. York will use me more "white" than another publisher did. I started bee-keeping a few years ago; in the spring of 1896 I had 12 colonies, and I sub-



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☞ See A. B. J., pages 809, 812, Dec. 17.
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49A13t *Mention the American Bee Journal.*

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Live Deer, Elk, Moose, Buffalo and Bears
The **Page** fence has revolutionized the whole Park system. We have contracts for so many new parks and game preserves that we shall hardly be able to supply all the animals to stock them. Any one having one or more of above species for sale, please address
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Cash PAID FOR Beeswax
For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 24 cents per pound, CASH; or 28 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly,** for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,
GEO. W. YORK & CO.
118 Michigan st., CHICAGO, ILL.

scribed for a certain monthly bee-paper in January, 1896, and in the fall I had 544 pounds of fancy honey to sell, so I wrote to the publisher to give, or send me the names of good, reliable firms in Chicago, to whom I could send my honey, but I did not get an answer; but the next copy of the paper that came contained a big advertisement of a certain honey-commission house, so I shipt to them, and "the consequences" I had to take, for I did not get one cent for my honey. One of my neighbors lost 600 pounds by the same concern.

LOUIS THIEL.

Back in the Ranks Again.

I commenced taking the American Bee Journal, when I was a small boy, in the 70's, and took it until I moved to western Dakota, where my bees dried up, and crops, too, when I was unable to pay for it, and in 1892 or 1893 I had to discontinue; but I am about to locate here in southeastern Dakota, where everything does well—bees excellently, and sweet clover has the waste ground. I can't get along any longer without the "Old Reliable."

THOS. CHANTRY.

Clay Co., S. Dak., Feb. 22.

Prospects Never Better.

I got 15 pounds of honey from one colony in 1896, and from the rest nothing. I have 5 colonies on the summer stands, and they seem to be wintering all right. I have been laid up for two weeks with the grippe; to-day is the first I have been outdoors. The prospects never were better, white and sweet clover look fine. Success to the "Old Reliable."

W. M. DANIELS.

Wood Co., Ohio, Feb. 18.

The name of the greatest oat is
"ILLINOIS"
yields over 100 bushels per acre, extremely early, finest quality, longest and strongest straw.
OATS
Send your name and address on a postal card and I will send you a sample, together with beautiful and instructive seed and plant book **Free,** if you write to-day and mention this paper.
H.W.BUCKBEE
ROCKFORD SEED FARMS,
Rockford, Ill.
P.O. Box 537
Mention the American Bee Journal.

Catalogs for 1897.—We have received the following Catalogs, Price-Lists, etc., a copy of which may be obtained upon application, always being careful to say you saw their advertisement in the American Bee Journal:

J. Van Deusen & Son, Sprout Brook, N. Y.—Flat-Bottom Comb Foundation.

R. H. Schmidt & Co., Sheboygan, Wis.—Bee-Keepers' Supplies.

I. J. Stringham, 105 Park Place, New York, N. Y.—Apiarian Supplies, Bees and Queens.

The A. I. Root Co., Medina, Ohio—Bee-Keepers' Supplies.

J. D. Givens, Lisbon, Tex.—Queens.

John Nebel & Son, High Hill, Mo.—Bee-Keepers' Supplies, Bees and Queens.

Geo. E. Hilton, Fremont, Mich.—Bee-Keepers' Supplies.

Gus Dittmer, Augusta, Wis.—Bee-Keepers' Supplies.

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If you care to know of its Fruits, Flowers Climate or Resources, send for a Sample Copy of California's Favorite Paper—
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The leading Horticultural and Agricultural paper of the Pacific Coast. Published weekly, handsomely illustrated, $2.00 per annum. Sample Copy Free.
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Of Bee-Hives, Sections, Shipping-Cases, Comb Foundation, and **Everything** used in the Bee-Industry.
I want the name and address of every Bee-Keeper in **America.** I supply Dealers as well as consumers. Send for catalogs, quotations, etc. **W. H. PUTNAM,**
RIVER FALLS, Pierce Co., WIS.
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Square Glass Jars.
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Send for our new catalog.
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Mention the American Bee Journal.

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That covers the whole Apicultural Field more completely than any other published, send $1.25 to Prof. A. J. Cook, Claremont, Calif., for his
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Liberal Discounts to the Trade.

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30 years' experience. If your case is sufficiently serious to require expert medical treatment, address
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Simple, Perfect, Self-Regulating. Thousands in successful operation. **Lowest priced first-class Hatcher made.**
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Bee-Keepers' Photograph.—We have now on hand a limited number of excellent photographs of prominent bee-keepers—a number of pictures on one card. The likeness of 49 of them are shown on one of the photographs, and 121 on the other. We will send them, postpaid, for 30 cts. a card, mailing from the 121 kind first; then after they are all gone, we will send the 49 kind. So those who order first will get the most "faces" for their money. Send orders to the Bee Journal office.

HONEY and BEESWAX

MARKET QUOTATIONS.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

NO. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed: both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

Chicago, Ill., Feb. 18.—Fancy white, 12c.; No. 1, 10@11c.; fancy amber, 8@9c.; No. 1, 7c.; fancy dark, 7@8c.; No. 1, 7c. Extracted, white, 5@7c.; amber, 5@6c.; dark, 4@5c. Beeswax, 25@26c.

Very little demand, considering season of the year.

Albany, N. Y., Jan. 29.—Fancy white, 12-13c.; No. 1, 11-12c.; fancy dark, 7-8c.; No. 1, 6-7c.; Extracted, white, 5½-6c.; dark, 4-5c.

The honey market is very quiet and stock moving very slowly, even at reduced prices. White clover is not plentiful. Extracted is moving very slowly, but we hope for an improved demand soon.

Indianapolis, Ind., Feb. 20.—Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Boston, Mass., Feb. 20.—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Cleveland, Ohio, Feb. 20.—Fancy white, 14½@15c.; No. 1 white, 12½@13c. Extracted, white, 6@7c.; amber, 4½@5½c. Beeswax, 22@25c.

There is not very much honey in our market Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

Kansas City, Mo., Feb. 19.—No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 9@10c.; No. 1 dark, 8@10c.; Extracted, white, 5½@6c.; amber, 5@5½c.; dark, 4@4½c. Beeswax, 20@25c.

St. Louis, Mo., Feb. 19.—Fancy comb, 12@@13c.; No. 1 white, 11@11½c.; amber, 9@10½c.; dark, 7@8½c. Extracted, white, in cans, 6@7c.; amber, in barrels, 4@4½c; extra, 5c.; dark, 3@4c Good demand for barrel stock—comb slow sale. Beeswax, 23@23½c.—prime finds ready sale at 23½c.

San Francisco, Calif., Feb. 10.—White comb, 9-10c.; amber, 5-7c. Extracted, white, 5-5½c.; light amber, 4-4½c.; amber colored and candied, 3¾c.; dark tule, 2¾c.

Beeswax, fair to choice, 23-25c.

Philadelphia, Pa., Feb. 2.—Fancy white comb, 12-13c; fancy amber, 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3½-4c. Beeswax, 25c.

Season is getting over for comb honey—very little demand. Extracted in good demand.

Detroit, Mich., Jan. 9.—Fancy white, 13-14c; No. 1, 12-13c.; fancy amber, 11-12c.; No. 1 amber, 10-11c.; fancy dark, 9-10c.; No. 1, 8-9c. Extracted, white, 5½-6c.; amber, 5c.; dark, 4-4½c. Beeswax, 25-26c.

Cincinnati, Ohio, Feb. 20.—No. 1 white, 12@13c.; No. 1 amber, 10@12c.; dark, 8@10c. Extracted, 3½@6c., according to quality. Demand is slow for all kinds of honey.

Beeswax is in fair demand at 22@25c. for good to choice yellow.

New York, N. Y., Feb. 20.—There has been a little better demand for comb honey during the last two weeks. Prices, however, will not improve, as the season is too far advanced and plenty of stock laying on the market. We have a good demand for extracted buckwheat, candied, and bee-keepers having their crop on hand yet, should now market it.

Beeswax is quiet at 26 28c., according to quality.

Minneapolis, Minn., Feb. 20. — Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Buffalo, N. Y., Feb. 19.—Fancy white comb, mostly 9 and 10 cts., and in moderate demand, while other grades are very hard to sell unless prices are made very low, ranging from 7@5c. There is stock that is poor enough to not bring over 4c. Extracted in moderate demand at 3@4c.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.

R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.

HILDRETH BROS. & SEGELKEN,

Kansas City, Mo.

C. C. CLEMOMS & CO., 423 Walnut St.

Buffalo, N. Y.

BATTERSON & CO., 167 & 169 Scott St.

Hamilton, Ills.

CHAS. DADANT & SON.

Philadelphia, Pa.

WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.

WILLIAMS BROS., 80 & 82 Broadway.

St. Louis, Mo.

WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.

S. H. HALL & Co.

Milwaukee, Wis.

A. V. BISHOP & Co.

Boston, Mass.

E. E. BLAKE & CO., 57 Chatham Street.

Detroit, Mich.

M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.

WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.

CHAS. MCCULLOCH & CO., 380 Broadway.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central avs.

Convention Notices.

Texas.—The next annual meeting of the Texas State Bee-Keepers' Association will be held at Greenville, Wednesday and Thursday, April 7 and 8, 1897. All are cordially invited to attend.

Queens and Queen-Rearing.—If you want to know how to have queens fertilized in upper stories while the old queen is still laying below; how you may *safely introduce* any queen, at any time of the year when bees can fly; all about the different races of bees; all about shipping queens, queen-cages, candy for queen-cages, etc.; all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know—send for Doolittle's "Scientific Queen-Rearing" — a book of over 170 pages, which is as interesting as a story. Here are some good offers of this book:

Bound in cloth, postpaid, $1.00; or clubbed with the BEE JOURNAL for one year—both for only $1.75; or given free as a premium for sending us *two* new subscribers to the BEE JOURNAL for a year at $1.00 each.

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PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.
GEN'L MGR —T. G. Newman....................
Sta. B, 2096 Market St., San Francisco, Cal.

See the premium offer on page 138!

Doctor's Hints

By Dr. PEIRO,

100 State Street, ** CHICAGO, ILL.

Diphtheria.

This is another of the household terrors most usual to occur at this season. Here, too, the hot bath and warm room and bed should be the first things thought of. If the head aches and throbs and considerable fever is on, breath heavily tainted, and ulcers forming in the throat, put a teaspoonful of cooking soda in a big glass of water, and give the patient a tablespoonful as frequently as every hour.

A drop of aconite tincture must be given every half hour until the fever is gone. After that a powder of merc. bin iodide every two hours for a few days is likely to end the trouble. A gargle of one-quarter teaspoonful of boracic acid in a glass of water, used frequently—say, every hour—greatly relieves and hastens the cure.

Croup.

This is another source of great anxiety to mothers. But happily *true* croup is not of frequent occurrence. The *spasmodic* variety is by far the most common, and can scarcely be termed dangerous. The visible distinction is that true croup has deposits of membrane in the mouth and throat, as in diphtheria (and should be treated in the same way); whereas, in spasmodic croup no membrane forms, hence the danger is not to be compared. The child with this latter form of croup often recovers without medical attention. The lips, throat and chest of the little one should be well anointed with camphorated lard; one drop of tincture of aconite given it every ten minutes, and a powder of spongia given it every half hour. Throwing a sheet over wire hoops over the crib—like the canvas often seen over wagons—and placing under it the spout of a boiling kettle of water, so that the child can inhale the warm steam, is another excellent procedure in either case. The steam has a soothing and beneficial effect. Usually the patient is quite recovered in an hour or two, the breathing having again assumed its normal condition. But if the peculiar choking or whistling occurs again, the same proceedings should at once be attended to.

It is impossible to describe this sound, but when once heard it can never be forgotten.

Whooping Cough.

This might almost be called a winter disease, though it does occasionally occur in other seasons of the year. It has a certain time to run, it is true, but the patient may be made vastly more comfortable by the treatment just suggested for spasmodic croup—and by it the serious complications which might arise, can, with considerable certainty, be prevented.

The same remedies may be given, but much less frequently after the first or second day. Much depends upon sensible, careful nursing. The child should be encouraged to play, in a warm room, to divert its attention and so prevent more frequent spasms of severe coughing. Those who live where chestnuts grow may try a tea made from the leaves. It is said to greatly aid recovery. It should be drank several times per day.

Castor-Oil in Honey.

You know how horrible to take is one of the best of remedies—castor-oil? But if you will add to it a tablespoonful of honey, and give in hot milk, that little youngster will never suspect that he is taking anything bad.

Wanted—A Situation

And wages as learner in apiary. Prefer North Central States. **M. F. L., Box 67,**
MILLBROOK, Mercer Co., PA

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FREE —A Copy of— **Successful Bee-Keeping,** by W. Z. Hutchinson ; and our 1897 Catalog, for 2-cent stamp, or a copy of the **Catalog for the Asking.** We make almost **Everything** used by **Bee-Keepers,** and at **Lowest Prices.** OUR

Falcon Polish Sections

are warranted

Superior to All Others.

Don't buy cheaply and roughly made Goods, when you can have **the best—such as we make.**

The American Bee-Keeper

[monthly, now in its 7th year]

36 Pages—50 Cents a Year.

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JAMESTOWN, N. Y.

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BEE-KEEPERS! Let me send you my 64-page Catalog for 1897.

J. M. Jenkins, Wetumpka, Ala.

Mention the American Bee Journal.

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Or in Exchange for

Foundation—Sections—Hives or any Other Supplies.

Working Wax into Foundation for CASH **A Specialty.**

☞ Write for Catalog and Price-List, with Samples of Foundation and Sections.

GUS DITTMER,
AUGUSTA, WIS.

Mention the American Bee Journal.

Golden Adel Albino **Texas Queens!**

Dr. Gallup says they are the best he has in his yard.

J. D. GIVENS, Lisbon, Tex.

Mention the Bee Journal. 9A26t,

A Special Booklet Bargain!

For a limited time we wish to make our readers a **special offer** on booklets on Bees, Poultry, Health, etc. Upon receipt of **75 cents** we will mail any **6** of the list below: and for **$1.25** we will mail the **whole dozen**;

1.	Foul Brood, by Dr. Howard	25c
2.	Poultry for Market and Profit	25c
3.	Turkeys for Market and Profit	25c
4.	Our Poultry Doctor	30c
5.	Capons and Caponiz'ng	30c
6.	Hand-Book of Health, by Dr. Foote	25c
7.	Kendall's Horse-Book	25c
8.	Rural Life	25c
9.	Ropp's Commercial Calculator	25c
10.	Foul Brood, by Kohnke	25c
11.	Silo and Silage, by Prof Cook	25c
12.	Bienen-Kultur, by Newman	40c

GEORGE W. YORK & CO.,
CHICAGO, ILLS.

One Cent invested in a postal card will get my large Catalog of All Root's Goods. Send list of what you want, and get price.

M. H. HUNT, Bell Branch, Mich.

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T. F. BINGHAM, Farwell, Mich.

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Because **IN 20 YEARS** there have not been any complaints, but thousands of compliments.

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What more can anybody do? **Beauty, Purity, Firmness, No Sagging, No Loss. Patent Weed Process of Sheeting.**

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Bee-Keepers' Supplies of All Kinds.

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Our business is making Sections. We are located in the basswood belt of Wisconsin; therefore the material we use cannot be better. We have made the following prices:

No. 1 Snow-White.		No. 1 Cream.	
500	$1.25	500	$1.00
1000 at	2.50	1000 at	2.00
3000 at	2.25	3000 at	1.75
5000 at	2.00	5000 at	1.50

If larger quantities are wanted, write for prices.

Price-List of Sections, Foundations, Veils, Smokers, Zinc, Etc., Sent on application.

6A35t **MARSHFIELD MFG. CO., Marshfield, Wis.**

ROOT'S GOODS! *****

☞ Before placing your order for this season, be sure to send for Root's

1897 Catalog, Ready Now.

Our 1897 Hives, with improved Danzy Cover and Improved Hoffman Frames are simply "out of sight." Acknowledged by all who have seen them to be a great improvement over any hive on the market, of last year.

WEED TRADE MARK NEW PROCESS

Comb Foundation

Cheaper and better than ever—clear as crystal, for you can read your name through it. Process and machinery patented Dec. 8, 1896. Samples of the New Foundation free.

THE A. I. ROOT CO.

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AMERICAN
BEE JOURNAL
DEVOTED EXCLUSIVELY TO THE INTERESTS OF HONEY PRODUCERS

37th Year. CHICAGO, ILL., MARCH 11, 1897. No. 10.

Contributed Articles

The Danzenbaker Hive.

The Danzenbaker hive is one that has been attracting some attention of late. It consists of a brood-chamber and a super with reversible bottom, and a gable cover. The brood-frames are of the well-known closed-end type, and reversible, being suspended from a pivot passing through the center of the end-bar. The hive rabbet, or support, instead of being near the top edge, is half way down. The dimensions of the frame itself are 7⅛x17, and 10 of them go in the hive. This makes the hive-body of the same length and width as the regular 10-frame Langstroth hive; but in depth it is 1⅝ inches shorter.

The super is made to hold 8 section-holders, each holding four 4x5 sections. These sections are open-cornered; and the claim is made for them that the bees fill them out better; that more of them go on a given hive surface, that they bring two cents a pound more on the market; that they look better, and are less liable to break in shipment.

The separators are made up of slats, and cleated. While perhaps they are a little more expensive, they are said to be more durable and satisfactory than the plain separators.

Mr. Danzenbaker believes most thoroughly in having the surplus-compartment made warm and tight. The section-holders have an air-space around the ends, and the sections themselves are covered with paraffine paper, closely matted down with ordinary newspaper under the cover. In the same way there is a dead-air space around the brood-frames, said space being closed up by means of cleats at the top of the

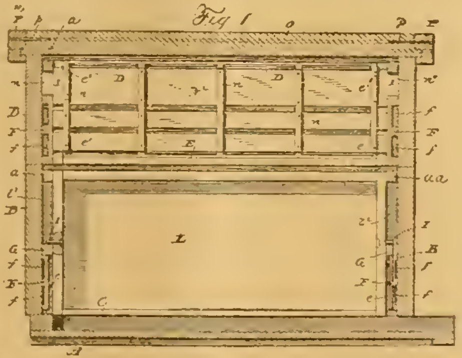


Fig 1

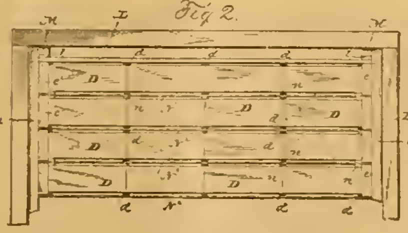
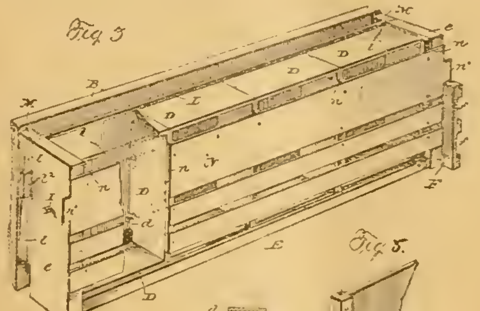


Fig 2

Fig. 1—A Longitudinal, Vertical, Sectional View.
Fig. 2—Sectional Top View of the Super.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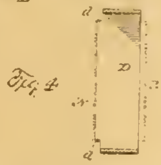
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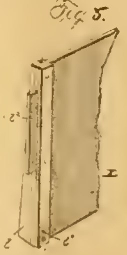


Fig 5

Fig. 3—Interior Sectional View of the Super.
Fig. 4—Sectional Elevation of the Danzenbaker Section.
Fig. 5—Follower with Projecting End-Support.

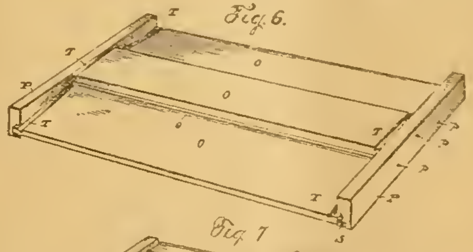


Fig 6

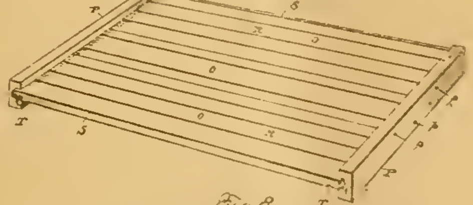


Fig 7

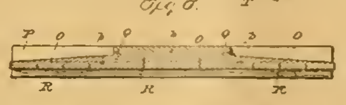


Fig 8

Figs. 6, 7, 8—Views of the Danzenbaker Hive-Cover.

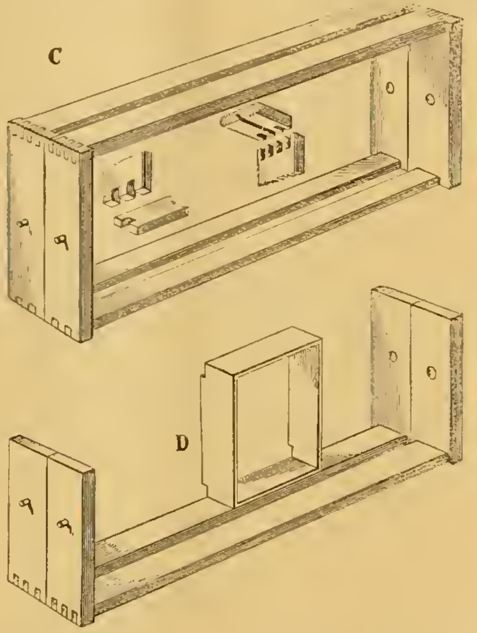
brood-frames. Similar cleats close up like spaces at the top of the section-holder ends.

The bottom-board has a full one-inch space on one side, and ⅜ on the other. In hiving new swarms it is advised to put the hive on the deep space. For cellar wintering the deep space is also used. In the fall, when the bees are not flying very heavily, or when robbing is the order of the day, the bottom-board is reversed, leaving only the shallow space under the frames.

Mr. Danzenbaker was the first one to introduce the dovetailed or lock-corner; and, from the very beginning, this corner has been a conspicuous feature on all his hives.

There are a good many admirers of closed-end frames, and there are also some others who very much prefer reversible frames. Mr. Danzenbaker has combined the two ideas in one.

Besides the features already named is paraffine paper, which is regarded by Mr. Danzenbaker as very important. It not only conserves the heat, but it is claimed that it does away almost entirely with propolis-daubing on the sections. Last year Mr. Danzenbaker produced a crop of honey in Michigan, not a great way from Geo. E. Hilton. The very fact that the latter had to scrape all of his sections, while Mr. Danzenbaker scraped none of his, and yet won the first prize on comb honey at the Michigan State Fair last fall, was of sufficient importance to warrant Mr. Hilton in believing that the principle was a good thing; and we understand he expects to use it on all his hives the coming season.



C—Closed-End Brood-Frame. D—Section an Section-Holders.

The illustrations herewith will doubtless be sufficiently clear, we think, without further explanation.

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Bee-Keepers' Exchange—California Conditions

BY DR. E. GALLUP.

On page 81, Mr. Doolittle pitches into us California chaps about the Bee-Keepers' Exchange. He rather infers that we have organized for the express purpose of raising the price of honey, like any other monopoly. I, for one, do not so understand it. If I have a correct understanding of the purpose, it is a sort of co-operative plan, for the bee-keepers' benefit, without working against the interest of any one, unless it should be the dishonest commission merchant.

We have poor people in our ranks, and when they see abundance of rain and expect a good season, they gather up a stock of bees (and they have no means, so have to get credit for everything, even the support of their families), and agree to pay as soon as they gather a crop of honey, and so they sell below the cost of production, and that price governs the price for the season to a certain extent. Now, we can take care of that honey at a fair price, and thus help the poor man out, to a certain extent.

Understand, the consumer never gets the benefit of this low-priced honey—the speculator gets all the benefit, for as soon as he gets control of this cheap honey, up goes the price.

Enough said on that point; any one can enlarge to suit himself.

Now, we all want more or less bee-keepers' supplies, and any supply dealer will be ready to give us the lowest rates at wholesale, or in carload lots, and we get the freight with a great reduction from small orders. Does this work against any one's interest? Certainly not. I wanted some of Dadant's comb foundation, for the purpose of testing, so I forwarded $5 and ordered it by express. The express charges were only $3.60. Now I want an extractor. I can get a single one here at about $11, but by ordering through the Exchange I can get it for less than $8. The dealer gets his price, the railroad gets their freight, and I fail to see who is damaged. And so with honey-cans, etc. Our hive manufacturers will furnish hives manufactured here at a reasonable rate, and I always am in for patronizing home industry when I can do so, even if I have to pay a trifle more.

Now, we have bee-keepers that can hold their honey until they get a reasonable price—Mr. McIntyre, of Ventura county, for one; Mr. Miller, of Orange county, for another; and there are others. Almost every bee-keeper, so far as I know, is perfectly willing to sell good extracted honey at 5 cents by the quantity. Mr. Miller has askt this season only 5½ cents by the 60-pound can, and that in a season when no honey of any account was gathered. He is abundantly able to hold, whether the Exchange says so or not. He began a few years ago, a poor man, and all broken down in health. He now enjoys excellent health. He keeps here 300 colonies of bees—oftener a few colonies less than more—and still I have known him to get 45 tons in one season's crop. I also have known him to hold his honey until he had 95 tons to ship out on one train.

The Orange Growers' Exchange is organized for a similar purpose to the Bee-Keepers' Exchange. Before the Exchange was organized, an individual might ship out at his own risk several carloads of fruit to a certain city. The man that purchases on commission is watching him, and ships a number of carloads at the same time to the same city. Both lots arrive at about the same time, and Mr. A. (we will call him that for short) receives a dispatch something like this:

"DEAR SIR:—Your oranges received, but there is a glut in the market, and the bottom has dropt out of the price."

If Mr. A. succeeds in getting enough to pay freight, and throw in the time of raising, picking, packing, etc., he does remarkably well. The man that shipt on commission has got his commission, and accomplisht his purpose of ruining the market for Mr. A. There are any quantity of cases where the honey-producer shipt his honey to market, and after awhile received a notice to forward more or less money to pay freight, as the honey did not sell for enough to pay freight and commission.

It is partly against just such transactions as the above that the Exchange was organized.

EXTRACTED VS. COMB HONEY IN CALIFORNIA.

I think many Eastern bee-keepers do not understand the situation or conditions here in California, for I am askt why we produce extracted so much more than comb honey. Our climate is always dry at the honey harvest, especially in the mountains away from the coast. The honey gathered is ready to seal almost as soon as gathered, and many times it is *perfect* as soon as gathered; therefore, we can go through an apiary of two hundred or more colonies, and then extract right over again, throughout the entire season.

Your honey is often gathered so thin that it takes quite a time before it is evaporated sufficiently to seal. When I had 100 colonies to extract from in Ventura county, I always found nearly every cell sealed every time I went through the hives; therefore, we think we get a larger quantity of extracted, more than we could of comb honey. I am not sure about that, as I never tried the experiment, but perhaps some one has; if so, let him trot it out. I am ready for conviction.

There is always a good home market for a limited supply of good comb honey, but then we ship at times large quantities of honey to Europe, and there has always been a difficulty in shipping comb honey long distances without damage and loss, and it is quite a nice, careful job to haul comb honey over our rough mountain roads, 30 to 40 miles, to shipping port or railroad station, without breakage; even our 60-pound tin cans go to smash if they are not packt in cases. Two 60-pound cans properly cased in a double case, or one case, will go around the world without damage. At least, I think they would, though I never tried the experiment, so I am not positive.

We have had fine rains, and plenty, so far. There was a heavy down-pour night before last, and last night, and all this forenoon. It is bright and beautiful this afternoon. Bee-keepers are all laughing in their sleeves here.

Orange Co., Cal., Feb. 20.

Foul Brood Among Bees—A Roof Apiary.

BY CHAS. F. MUTH.

When foul brood was introduced to the neighborhood of Cincinnati, my roof apiary was affected along with the rest. My roof had been built for the purpose, and my apiary was, perhaps, the only successful roof apiary in a large city, that ever existed. I had sometimes 100 and more colonies of bees on my roof, but 40 to 50 colonies, during a season, was my average. My crops of white clover honey, in a season, were as high as 7,000 pounds or over, and my largest average crop per colony was 198 pounds, spring count. It was in the good olden times, when the idea prevailed that there were seven good seasons to one poor one; when comb honey sold at 35 to 40 cents a pound, extracted at 25 to 30 cents; when wheat was $1.25 to $1.50 a bushel, corn 50 to 80 cents, potatoes 75 cents to $1.00, hogs $6 to $7 per 100 pounds, etc. I sold, at that time, quite a number of colonies of bees, and received regular shipments, in early spring, of 25 or 50 colonies at a time, from Dr. O. M. Blanton, of Mississippi, and also a Mr. Parks, in Arkansas, and others.

The appearance of foul brood in my neighborhood succeeded in putting down my enthusiasm as well as in extinguishing my roof apiary. Being an industrious reader of all bee-literature, and blest with the gift of observation in bee-matters, I soon learned to distinguish between the malignant and the harmless foul brood, and I was one of the first in America who could promptly cure them both. My teachers had been Dr. Schoenfeld and Emil Hilbert, of Germany.

I made it no secret having foul brood, but posted our friends through our bee-journals at our bee-keepers' meetings, as to the progress the disease made in my apiary, and my success in curing it. Having given my experience with "Foul Brood" in my pamphlet, "Practical Hints to Bee-Keepers," it is not now my object to jaw over a subject which has been discust bountifully by parties of experience, and by others who never knew anything about it.

My object now is, to state that I believe I know that the germs of foul brood (the spores) will keep alive for 18 months, or longer, in the abandoned hives, in the fissures of the wood, in front of hives, and are ready to re-infect newly-introduced colonies. From my experience of two years ago, I believe, also, I know that those spores will not keep alive for five years. So, if I am correct, after all the bees have been killed off in a neighborhood, for five years or more, as has been the case with Cincinnati and her vicinity, we may keep bees again and enjoy the old sport once more.

In the summer of 1895 I brought home, from a tree in the yard of a friend, a swarm of bees, dusted out a hive out of which the bees had died of foul brood five years previous to that time, and, without any further disinfection, put in a nice, large swarm of hybrids. They built out their foundation, and went into winter quarters strong in bees and melilot honey.

Last summer (1896) they gave me 120 pounds of extracted sweet clover honey, and a strong artificial swarm, which also was put into one of those old hives without subjecting it to any disinfection other than a good dusting out. This colony went into winter quarters hail and hearty, and with plenty of melilot honey. I have one more of those old infected hives, which I shall try next summer. All the balance of my hives were made into kindling wood in (what I thought) due time.

Hamilton Co., Ohio.

The Proposed "Deep-Cell" Foundation.

BY W. Z. HUTCHINSON.

Away back nine or ten years ago, two brothers, E. B. and A. B. Weed, of this State, did a lot of experimenting in trying to manufacture artificial comb. They made hexagonal dies the size of the inside of a honey-comb cell, and placed these dies very close together—so close that when wax was forced out between them it was about the thickness of the walls in a honey-comb cell. Wax was warmed until it was as soft as it could be without melting, then placed in a chamber one side of which was made of these afore-mentioned dies. A screw pressure was then applied to the wax in the box. The result was that great, long cells, all connected together, were formed yards and yards in length. These long strips of cells could be easily cut up into any length, by means of a wire heated by electricity. There was no trouble in cutting it up into pieces the right thickness for comb, but the difficulty lay in putting in the septum. Many trials were made by using a wire heated by electricity, using different sized wires, heated at different degrees of heat and moved at different rates of speed, etc., hoping in some way to strike the right kind of a combination so that a sort of film of wax would follow after the wire and thus form a septum. It was a failure. The best that could be done, or was done, was to stick these "sawed-off" cells upon a thin sheet of wax as a base. The pressure required to force the wax through the dies was something enormous, and nothing above a piece of comb four inches square was ever made. Mr. Weed frequently came out to see Mr. M. H. Hunt, to try to get him to "take stock" in the enterprise, but Mr. Hunt always told him that when they had produced a perfect comb of Langstroth size he would be ready to talk with him. Other people, however, became interested, and put money into the scheme, but nothing practical resulted.

During the last year or more Mr. Weed has been experimenting in the same line at the establishment of The A. I. Root Co., and has at last succeeded in making a very fine specimen, the samples sent out having cells ⅝ of an inch deep, but it is said that they can be made deeper if necessary. I presume, but, of course, don't know positively, that the cell-walls are made in a similar manner to those made in the former experiments, and I presume that the septum is a thin sheet of wax to which the side-walls are in some manner attacht, just how I don't know, but I presume it is by means of heat. It is not done by means of passing through an electric wire, as, in that case, the bottoms of the cells would be exactly opposite, which is not the case, each cell being opposite the three opposing cells, as in natural comb. I think it is not strictly exact to call it "deep-cell" foundation, as it is not foundation in the sense in which we use the word. It is neither rolled nor prest out, but the cells made in such manner as I have described, and then stuck in such manner upon a base formed of a flat sheet of wax. At least, that is the way it looks to me. As in the former case, no large sheets are yet made, nothing but samples about 3 by 1½ inches. At least that is the size that was sent to me.

That such comb will be accepted by the bees there is no kind of question, and that its use would increase the quantity of comb honey I have no doubt at all, and I should hail its advent with delight were it not that I feel absolutely certain that its use will greatly impair the eating quality of comb honey. It is quite likely that the base and walls can be made as thin as those of natural comb—man's ingenuity is great, and can accomplish what is almost a miracle—but the trouble will be in the quality of the material. It will be tough and leathery. It will be like doing up extracted honey in thin sheets of wax—that is exactly what it *will be*. We all know that when bees build their combs naturally, and then fill them with honey, the comb is of a friable, brittle character, and when chewed up with other food, as biscuit, for instance, this comb breaks up into small pieces and mingles freely with the wax, so much so that its presence is not noticed. In fact, this gradual breaking down of the comb plays no small part in the deliciousness of comb-honey consumption.

Great was the kick against comb foundation when it was first introduced, but manufacturers have reduced it to such small proportions (thinness) that it is now tolerated; but I venture the assertion that there is not one who reads these lines who would not choose naturally-built combs for his own consumption. I know that I would. Comb foundation has certainly injured the eating quality of our comb honey, altho it may have, and probably has, greatly increast the quantity. I presume, in fact I feel certain, that the use of this new comb will increase the quantity of our comb honey, but I do certainly fear for its effect upon its quality. Comb honey is a luxury—a luxurious luxury—and when people find it is honey done up in tough, leathery wax that forms in "gobs" in their mouths, I fear that it will lose its luxurious character—that this new comb will prove a boomerang.

I know, of course, that it is to be used only in an experimental way at first, but, even if it does injure the character of our comb honey there would be men who would use it if they could get it, if it would increase the quantity. I am glad that it is to be patented and become the property of The A. I. Root Co., because, if it should prove to be detrimental to the best interests of apiculture, they would have it in their power to suppress its manufacture. At least, I *suppose* they would.

Genesee Co., Mich.

[About the same time we received the foregoing article from Mr. Hutchinson, we got the following from Mr. T. F. Bingham, of Clare Co., Mich., on the same subject.—Editor.]

I noted in the report of the Lincoln convention, that it was probable that drawn combs would soon be made full-depth without the intervention of the honey-bee. In the current number, page 72, it is stated that drawn combs ¼-inch deep have been made by Mr. Weed, and that such combs would enable bee-keepers to produce comb honey as cheaply as extracted, and adulteration would become a thing of the past, etc.

In this light, how do the old stories look, that combs were made and filled with glucose, capt with a hot iron without so much as "if you please" of the bees? At that time the "old reliable" American Bee Journal denounced the whole story as a fake, and that if believed the story would be a great damage to the bee-keepers and the pursuit. If so then, what will its effect be now? Can bee-keepers stand more beeswax now, than then? Italian bees injured comb honey by their waste of material, and it has added the new word "fish-bone" to comb-honey literature.

Allow me to enter a protest against more wax in comb honey. We have it in excess already. It may yet become profitable to abandon yellow bees, comb foundation, and the honey-extractor in order to meet a demand for the best honey that can be procured.

No one can blame the mixers for mixing low-grade honey; neither can they be blamed for buying drawn combs to put in bottles of honey. It would be no worse to put combs made of beeswax in honey than to put honey in such combs. As to such combs doing away with adulteration, nothing could so aid it.

It seems very strange to me that bee-professionals should try to invent or encourage anything that no one could fail to see would be an injury to every one interested in the pursuit, and the consumer also. I think that bee-keepers and bee-papers should aid adulterators as little as possible, and do all in their power to prevent adulteration.

I like the course taken by the various journals regarding the adulteration of honey—the American Bee Journal in particular. T. F. Bingham.

[In order that a little more light may be thrown on this subject, we take the following from Gleanings for Feb. 15, written by Editor Root.—Editor.]

I believe that Mr. Hutchinson is thoroughly honest in his convictions on this matter. In fact, I once thought as he does; but Mr. Weed knockt my theories into smithereens by hard *facts* in the apiary.

He had been experimenting and testing this new product for *nearly two years* before we said anything about it in print. He has put it on our hives, and had the bees draw it out—in fact, tried it under all sorts of conditions. The proof of the pudding is in the eating; and the results in our apiary so far seem to show that Mr. Hutchinson's fears are groundless. The *comb* from the new product is *not* tough and leathery at all. After a long series of experiments we have about come to the conclusion that, in the use of foundation, the bees do not utilize or in any way make use of the wax in the *base* or *septum*; but they will utilize all the wax in the *side-walls* to the depth of ⅜ inch. Ordinary roller-mill foundation has a surplus of wax in the wrong place. We are aiming in the new product to put it in the *right place.* With this end in view, Mr. Weed has been experimenting along the line of making deep-cell foundation, the bases of which are just as thin as the natural; and the walls, instead of 3/1000-inch thick, as in the natural, are 8/1000. Careful measurements last year showed that the bees reduced this 8/1000 down to about 3/1000. The surplus wax was simply used to build up the depth of the cells.

I grant that there is fish-bone to some extent, resulting from the use of comb foundation; but the reason of this is that at present there is more wax in the bases than there needs to be; and the wax in the side-walls is in such shape that the bees do not utilize all of it. The result is that a midrib is left in the center of the comb, thicker than will be found in combs built wholly by the bees. In the new product we propose to put this wax where it will not be detected in the eating. The very snag, then, that Mr. Hutchinson is afraid we shall run into is the *very* one we would avoid in the new product. In other words, it is not proposed to use more wax than we now use in thin foundation; but we do aim to put that wax in such shape that bees will utilize it in such a way as to leave no midrib or fish-bone in comb honey.

Mr. Hutchinson need have no fears that we shall rush on the market the new deep-cell foundation in any quantity this season. At present we have only one small machine, and turn out pieces about 4x5 inches. We are working on another machine to make samples perhaps 5x8 inches. The machinery and dies necessary for the purpose are very expensive, and, even with the larger machines, the output will be very limited. If bee-keepers are holding back their orders for foundation, expecting the new product *in quantity* this season, they will be disappointed. They had better make their requirements, irrespective of the new article, and in the meantime we will try to furnish a super or two of the new deep-cell foundation to those who wish to try it. E. R. Root.

The Honey Liked Best—Difference in Tastes.

BY JOSEPH BEATH.

In answer to Query 40, "What honey is generally liked best?" it depends upon three things: 1st, the quality of the honey; 2nd, the taste of the individual, both natural and acquired; 3rd, prejudice.

In the first place the honey from the same flowers varies considerable at different times and places, probably owing to the weather, soil, etc., being very much stronger sometimes than others.

Second, as to taste; our natural tastes vary a good deal, but not nearly as much as our acquired tastes. Whatever we are accustomed to we usually like, as, for instance, eating oysters, chewing tobacco, taking snuff, etc.

Third, as to prejudice. I will give a little experience: Thirty-eight years ago I came to Adams county, Iowa; at the same time my neighbors came from New England, and they fully believed there was no corn equal to the little Yankee corn with which to make johnny-cake or corn-bread. The Western yellow corn would do to feed, but not to make into bread. The Yankee corn was so much sweeter! Well, an old gentleman, named Harlow, went to mill with two sacks of corn—one Western yellow for the chickens, and the other Yankee corn to eat, and on the way he forgot which was which. "Oh," said the family, "we can easily tell the Yankee corn by cooking a mess of one and then a mess of the other; and they cookt that way until both sacks were empty, but were never able to tell which was Yankee or which was Western; but it killed the prejudice of the whole community.

Some years ago we had a very smart young man teaching school in an adjoining district, and I went to sell them some honey where he was boarding. I took along some clover and heart's-ease honey, and sold them either 25 or 30 pounds (I have forgotten which). I showed both to the lady of the house, and askt her which she would take. She said, "Fred said he wanted clover honey. Which is the clover honey?" I answered: "I would just as soon as not tell you which is the clover honey, but I would like to see whether Fred knows clover honey or not. So take which you like, and if you want to change it I will do so." After tasting, she could not tell which she liked best, and took half of each.

Well, they used it all, and neither Fred nor the family could tell which was the clover honey, or which they liked best.

READING AND BINDING THE BEE JOURNAL.

First, I always have a pencil handy, and when I find anything that I think I will want to refer to hereafter, I write the title and page on the top of the front page. I find this much handier than writing it in a book or any other way that I have tried or have seen mentioned. Then, when I want to hunt up anything, I take my journals and turn them over one at a time. I have them bound since 1879, with a very few copies missing.

As to binding, years ago I got a binder which I still keep them in but not bound. At the end of the volume, I take a brad-awl and punch about four copies at a time, keeping one for a pattern so as to have all the holes alike, then sew them together with strong twine. I formerly put covers on, but do not any more, as they are kept away from the dirt.

NOT WILD PARSNIP, BUT HEMLOCK.

On page 61, I see wild parsnips mentioned again, and S. B. Smith tells about parsnips that had gone wild, or self-sown for 10 years, and then they got seed from them for years, but never was poisoned. He then gives two instances of roots being taken from a field, the one killing a horse, and the other in a few moments caused a burning sensation in the throat and stomach, and severe pain, which the attending physician said was poison from eating wild parsnip.

Now for the explanation: In the first case, it was the common parsnip, which, self-seeding for a hundred years, would never make poisonous; while in the second case (of both the horse and man) it was hemlock, of which there are several varieties scattered over Europe, Asia and America, all of which are poisonous. The poisonous extract is known as "conia;" the dose of which, in medicine, is from one-fourth to one-sixteenth of a grain, and causes a burning sensation, as in the young man's case. As to its poisoning qualities, it is reported that one drop in the eye of a rabbit caused death in nine minutes, while three drops in the eye of a strong cat killed it in 1½ minutes.' Either this or the water hemlock (cowbane) was probably what was used by the Greeks to poison with, as in the case of Socrates.

Now, why is this called wild parsnip? Simply because of its similarity to a parsnip, both in root and top, when it is full grown and the parsnip has gone to seed. But there is a great difference, both in smell and looks, when a person once knows them. The hemlock blossom is white, and in this country grows only in the sloughs, while the parsnip blossom is yellow, and is usually found only around where there has been a garden. Besides, there is quite a difference in the leaves, stalks and roots, but I cannot give a correct description of them now.

Adams Co., Iowa.

CONVENTION PROCEEDINGS

Report of the Vermont Bee-Keepers' Convention.

BY M. F. CRAM.

The 22nd annual convention of the Vermont Bee-Keepers' Association was held at Vergennes, Jan. 21 and 22, 1897. The meeting was called to order by Pres. H. W. Scott, prayer offered by H. L. Leonard, and then the Secretary's report was read and adopted, after which the following committees were appointed by the chairman:

Committee on Resolutions—M. F. Cram, D. D. Howe and H. L. Leonard.

Committee on Nomination—G. H. Fassett, W. G. Larrabee and G. C. Spencer.

The report of the Treasurer showed the financial standing of the association to be in good order, a small sum of money being on hand.

The attendance was fair, but not as large as it would have been if some of the best working members had not been detained at home by sickness, but those that were present took a lively interest in the discussions that followed. First was the

CARE OF BROOD-COMBS,

which was opened by W. G. Larrabee, who had had considerable trouble in keeping moths from comb when not in use. Some fumigated with sulphur, some with tobacco, some recommended hanging them one inch apart on a rack; while all conceded that the best place was with the bees.

PRODUCING COMB HONEY VS. EXTRACTED.

In the absence of J. E. Crane, who was detained by sickness, Pres. H. W. Scott was called upon to give his experience in producing honey, both comb and extracted. He uses full sheets of foundation in production of extracted honey; puts on top stories without excluders, as soon as the bees get strong, and usually the queen will occupy two or three frames; sometimes he puts one frame of brood in the upper story. Mr. Fassett uses combs for extracted honey. Mr. Larrabee thinks that extracted honey pays as well as comb honey.

HONEY PRODUCTION IN CALIFORNIA.

Mrs. W. Wilson, of California, gave a very interesting talk on the production of honey in California. She showed that she had the one thing needful for a bee-keeper, that is, *pluck*, as she bought five colonies and lost three in moving them home. Then she increast to 100, and lost all but two with foul brood. She had built up a reputation for fine quality of honey; having sold all she had to spare to a city dealer, he bought of some others, but its having no reputation it would not sell, so he induced her to exchange with him what she had saved for her own use, and in setting out a little of this honey for the bees to clean up they contracted foul brood. This shows that no bee-keeper should feed honey without thoroughly boiling it, unless he knows the source from which it came. She afterwards increast to a handsome apiary, and produced honey with profit.

We then listened to singing by M. A. Everest, who, by the way, is quite a poet, and he gave all the members present a collection of songs which he had composed.

INSTRUCTING RAILROAD EMPLOYEES—FOUL BROOD.

The question was askt, "Shall we ask the railroad companies to instruct their employees to handle comb honey as they would eggs?" The result of the discussion will be found in the report of the committee on resolutions.

QUES.—"Has any one had any trouble with foul brood? If so, what shall we do to cure the disease." No one reported a case of genuine foul brood in Vermont.

At the evening session the subject of

MARKETING HONEY

was opened by W. G. Larrabee, followed by M. F. Cram, M. A. Everest, D. D. Howe and Mrs. W. Wilson. Mrs. Wilson claimed that in Los Angeles, Cal, a firm had mixt glucose with extracted honey and shipt it East, and sold it for pure honey.

WORK AT THE EXPERIMENT APIARY.

Next came a report of experimental work done at the apiary at the Experiment Station, and was opened by D. D. Howe. The weather being very favorable, spring feeding did not amount to much, as the bees steadily gained without feeding. Mr. Howe said that the experiment of feeding back he did not wish to report, as he thought it was not properly done. One experiment was feeding sugar syrup to the bees to see if they added anything to it, or chemically changed it. It was fed back again, three different times in succession. Sample No. 1 was the clear sugar syrup, No's. 2, 3 and 4 was the sugar syrup after extracting in their respective order as numbered. The analysis was preformed by Prof. J. L. Hills, Director and Chemist of the Experiment Station, and the percentages are as follows:

Moisture	27.50%	24.01%	20.00	19.81%
Ash	.02	.06	.04	.044
Acidity as formic acid	.016	.032	039	.044
Sucrose	63.48	20.35	21.03	22.08
Dextrose	.19	49.92	48.77	50.12
Polar. before iris	plus 64 42	plus 11.00	plus 12.50	plus 13.8
Polar. after iris	−19.80	−16.00	−15.40	−15.50
Specific gravity	1.3202	1.370	1.3867	1.4002

Here is what Mr. Hills says of the analysis: "No. 1 is apparently sugar syrup; No's 2, 3 and 4 do not differ enough to say so. The acidity increases slightly as the numbers increase, but the amount of sucrose or cane-sugar, and dextrose, or levulose, is essentially the same in them all. All three would be clast by the chemist not acquainted with their origin as honey's adulterated with cane-sugar."

At this point there was a recitation by M. F. Cram, and a song by Mr. Everest.

BEES AND FRUIT—SPRAYING FRUIT.

QUES.—"Do bees ever puncture grapes or injure any fruit that the skins have not been previously broken?" ANS.—No.

QUES.—"Does spraying fruit-trees while in bloom prevent the fruits from being stung? or, in other words, prevent the fruit from having green, hard spots running from the rind toward the core?" ANS.—No, by all present.

At the morning sesion of the second day, the committee on nominations recommended that the old board of officers be elected. But Mr. Lowrey, refusing to serve as secretary, M. F. Cram was elected.

The following were selected as the committee on experimental work:—O. J. Lowrey, M. F. Cram and R. H. Holmes.

The committee on resolutions reported as follows:

Resolved, That the thanks of the Vermont bee-keepers be tendered Mr. M. A. Everest for the hospitable manner in which he has entertained the members during the session.

Resolved, That the members of the Association tender their thanks to the Central Vermont & Rutland Railroad Co. for reduced rates during the session.

Resolved, That we highly appreciate the interest shown by the Board of Control and Directors of the Vermont Experimental Station, as well as the labor performed by the Chemist and Farm Superintendent in the work of the apiary.

Resolved, That the members of the Vermont Bee-Keepers' Association highly approve of the Act past by the last Legislature, to prevent the spraying of fruit-trees while in bloom, it being very beneficial to the interests of the bee-keepers and fruit-growers of Vermont.

Resolved, That the members of the Vermont Bee-Keepers' Association think it best to ask the railroad officials to notify their employees to handle comb honey as carefully as they would eggs, and that the Secretary be instructed to send the railroad officials a copy of this resolution.

M. F. Cram, }
H. L. Leonard, } *Com.*
D. D. Howe, }

The above resolutions were then adopted.

LOCATING AN APIARY.

The points to be considered in locating an apiary were discust by M. A. Everest, followed by others. Mr. Manum thought that snow was beneficial, had walkt on the snow on top of the hives and the bees came out in good condition in the spring.

Mr. Everest thought that bees should be moved to new locations to prevent disease from old and decaying bees.

Mr. Manum did not think it necessary, but all that spoke admitted it best to keep everything neat and clean about the apiary.

SEVERAL QUESTIONS.

Ques.—"How to clean the pollen from old combs," was then discust. Not many were troubled, but if they were they would melt them into wax.

Ques.—"What about the origin of the honey-bee in this country?"

Ans.—It orignally came from Germany. (Will the editor please tell when, where, and by whom, the first honey-bees were brought to America?) [This editor is unable to answer. Will some one who knows, kindly do so.—Editor.]

Ques.—"Does spring feeding pay?" Mr. Manum requested that it be tried at the Experiment Station, and it probably will be again the coming season.

The subject of foul brood was discust, but it was not shown that there was any genuine foul brood in Vermont.

It was voted to hold the next annual meeting in Burlington, in January, 1898, the time to be set by the Executive Committee. M. F. Cram, *Sec.*

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

What to Do With Unfinisht Sections—Fine Wire in Section Foundation.

1. I want to know what's best to do with unfinisht sections. All bee books and manuals, while giving long-drawn instructions concerning matters of lesser importance to the tyro, are studiously reticent on this point. Hooker, in his "Guide," does go so far as to say that when the honey-flow has ceast, the sections, though unfilled, must be taken off, or the bees will carry the honey down into the hive. It is also stated somewhere that they will carry *up* honey to complete them. But not a word of instruction does he give as to what is to be done with these unfinisht sections, nor does any other author whose work I possess. In turning over files of the American Bee Journal one finds here and there the advice tendered to extract partially finisht sections, but no reason is assigned for this wasteful treatment, and nowhere can I see it recommended that, should another white or amber-colored flow be near at hand, they should be left intact and replaced on the hives at the opening of this second flow for completion. Is there any objection to doing this, that we are never so advised? If so, will you kindly tell us what it is? And should the partially capt ones be uncapt and the edges broken down a bit when so replaced?

I have been wading through E. T. Abbott's series of articles on the production of comb honey, in the hope of finding in them the information I seek, but no; all he says (see page 230, 1895), is: "One should manage to have as few empty sections as possible"—(he might with equal wisdom have said that one should manage to regulate the honey-flow, or regulate the climatic conditions during the period of certain nectar-secreting flowers blossoming); "and," he continues, "unless those are in very fine condition, it will pay to throw them away and put in fresh ones." Is it possible that such leading lights of our industry should thus callously recommend us to cut out say ½-pound chunks of delicious comb honey from unfinisht sections, and "throw them away?" He might have added, as a warning, not to throw them about the apiary, as it may set up robbing, but throw them preferably into the pig-sty, to the chickens, or to the dogs, for thus they will be gotten rid of and not prove a source of danger.

On page 336 of Vol. XXXII this matter of uncompleted sections is made, I see, a "Question-Box" query. But the replies do not suit the conditions I have supposed to exist, as they assume that absence of a honey-flow whereby they might be completed for another *full year*; whereas, what I am desirous of knowing is, whether, if the interval betwixt the flows is only say six weeks, these half-finisht sections cannot be returned to the hives. There may be a slight difference in flavor, and even in tint of the two honey's; but what of that? better that than to follow Mr. Abbott's advice, and "throw them away".

2. What do you think of the new German foundation mill, made partly of cement, and costing only 82 cents? It is mentioned in the Australian Bee-Bulletin for Dec. 28.

3. What would you think of the plan of having very fine wire in sections to hold the foundation in place? Instructions could be printed on the outside, directing consumers how to draw out the wires so as to leave the comb unharmed.

South Africa.

Answers.—1. Very much has been written on the subject of the best thing to do with unfinisht sections, and the question has been answered more than once in these columns, but just as you put the matter it is practically a new question, one that I don't remember to have seen askt before. Your question is as to what shall be done with sections not completed in case there shall be a further honey-flow the same season. I think I should know pretty well what to do with them—at least I know what I have done with them—but I feel a little shaky as to giving a satisfactory answer to meet all cases. But I'll try. I have known times when the white honey-flow stopt all of a sudden, and then started up again a a few days later. In that case, if the sections had been left in the supers, the supers were put right back on the hives again without any change whatever, and all seemed to be well.

But suppose the white honey season is over for good, and somewhere from one to six weeks later another flow of darker honey comes. All sections were taken off at the time the white honey stopt, and they were in all stages between foundation untoucht and sections fully completed. In this case the element of granulation does not come, simply the matter of darker. Of course, there's no question as to what to do with completed sections, they stay off, and equally of course the untoucht foundation goes back on just as though it had never been on. Some of the sections are very nearly completed, all the cells filled and a very few unsealed. Very likely they may as well stay off, for the gain in putting them back will hardly pay for the trouble. Next come the sections which have 25 to 50 cells not entirely built out. If you put them back on, the cells will be completed and filled out with the dark honey. The question is: Which is better, the section with unfinisht cells, or the one entirely completed but having a few cells of dark honey? You must find the answer to that question yourself. In some cases the honey will be only a little darker, and it will be better to have the sections finisht. Your customers may not object to dark honey, and may object seriously to having unfinisht or uncapt cells, and vice versa. You must be governed by the circumstances.

Suppose the second harvest is of very dark honey, and you decide that it will not do to return such sections as we have been talking about, that are well on toward completion. They will be left off, untoucht foundation will be returned, and there will be a dividing line somewhere between. Just where that dividing line shall be drawn depends upon the circumstances I have mentioned, the character of the honey and the character of your market. But somewhere there will be a line, and it will fall pretty well up toward sections of full weight. Almost surely, (unless the dark honey is too bad for table use) it will fall among the sections that are more than half weight. For a section only half filled is not so generally desired as one completed but of darker color.

All this is on the supposition that it is deemed best to have all surplus honey in sections. In many cases that will not be deemed best. It will be considered better to get all the light honey in sections, letting the dark honey be extracted or saved in combs for the bees to use in the fall or following spring.

In returning the sections there is no need to uncap or break down the edges; indeed, there is no need to do anything unless it so happens that at some point the surface of the comb falls less than ¼ inch from the nearest surface, in which case it must be cut away or the bees will build the comb to the adjacent surface.

2. I don't know enough about the mill in question to give an opinion.

3. With some people it might work all right, but I'm afraid that in a good many cases the wire would be left in the honey when placed on the table, and some incorrect English result. If we can get the deep cells they are now talking about, and use them for botton starters, there will be no need of wires. Indeed, I have very little trouble with ordinary foundation for bottom starters.

The Right to Sow Sweet Clover Seed.

1. Has a bee-keeper a right to sow sweet clover seed along the roadside of his neighbors' land, without getting into trouble with them?

2. Do the supply dealers keep heavy brood foundation in stock, in sheets 10x18 inches, outside measure?

READER, Wisconsin.

ANSWERS.—1. That depends upon your laws. It's a question for a local lawyer or justice of the peace rather than for a bee-paper. There are laws in perhaps most of the States against sowing seeds of certain plants along the roadside, or even upon your own land. You ought not to be allowed to sow Canada thistles on any part of your own land, for if you do your neighbors are likely to be injured by it as well as yourself. But if there is a law against your sowing sweet clover, you should respect the law while it exists, and use your best efforts to have such a foolish law repealed; unless, indeed, it may be advisable to violate the law with the express purpose of testing its constitutionality. Earnest men in your State are trying to undo the mischievous legislation that has been done, and it might be a good thing if Mr. France would tell us just how matters stand now, and the proper attitude for bee-keepers to take.

2. Sheets of foundation 10x18 are not generally kept in stock, if ever, but you can have foundation cut that size without extra charge.

Hauling Bees—Methods of Increase.

1. On page 87, you say, "When placed on the cars let frames run parallel with the track; on a wagon they should run crosswise." Why? Why not crosswise on wagon tracks? or why not parallel on track and wagon? What difference does it make?

2. What, in your opinion, is the best method for increase, allowing the bees to swarm, increase by division, or build up from nuclei? Last season I made an increase by taking six frames with adhering bees, moving them to another location, keeping the old queen on the same stand with two frames and filling the hive up to eight frames, with full sheets of foundation. What do you think of this method?

3. On page 102, about moving bees, I find that if one places a slanting board in front of each hive there is little or no trouble about the bees returning to their stands. I have tried this in moving hives from two feet to a mile. I once moved six hives of bees a mile, and used the board, but very close to the entrance, for two days and then moved it about six inches out. Going back the next day after I had moved them, I found about one-half cupful of bees on an old frame, the next day they had all disappeared, returned I suppose to their new stand.

J. D., New Orleans, La.

ANSWERS.—1. If you pick up a hive having its frames run from front to rear (most of them run that way in this country, although many across the sea run the other way), if the frames are hanging loose you can shake them from their places by swinging the hive from side to side, but can do little to stir the frames by swinging it from from front to rear. You can break a comb out of a frame much more easily by swinging the frame from side to side than you can by swinging it endwise. In a railroad car there is a gentle rocking from side to side, but often a terrific bumping front to rear. A car is bumpt on the end, not on the side. So place the hive in position to stand the bumps. See? In a wagon it's different. The jerking and jolting is from side to side, principally, just the reverse of the railroad car.

2. It's very much a matter of conditions and circumstances. What's best for one may not be best for another. A plan that you are thoroughly familiar with, whose details you can carry out in the best manner, may be better for you than a second plan, which second plan might be a good deal better if you were equally familiar with the manner of carrying it out properly. For many, nothing is better than natural swarming, while for others the issuing of a natural swarm is a sort of nightmare. Rightly carried out, your plan is a good one.

3. The plan is an entirely successful one when it succeeds perfectly. Sometimes, however, for reasons easily understood, bees will come out around the board and go back to the old place just as if no board had been in the way.

Section Width and Passageways.

1. You have spoken of thin combs in sections less than one-pound; I wish to start right, therefore, what width section would you use in wide frames with separators?

2. Is it an advantage to have center passageways from each section and row of sections?

T. C.

ANSWERS.—1. That's a question I don't know enough to answer. With my present light I think if I had to adopt a certain size and agree to stick to it, I should say sections 1¾ inches wide. But I should want the privilege of changing to another size if I wanted to, and on that account, if no other, I should not want to use wide frames at all. A T super can be used for sections of any width, and if 1¾ should not be entirely satisfactory it could be changed to 1⅞, which is perhaps the most popular at the present time.

2. It is doubtful if there is any sufficient advantage in having any central passage in separators, the usual passage at top and bottom being sufficient. If, however, separators 4¼ wide should be used with 4¼ sections, then it might be necessary to have some additional passage.

The Colony That Loaft.

Edward H. Beardsley asks, on page 92, about a colony that loaft after being increast to unusual size by the accession of another colony. Your proposed plan of dividing that colony would probably have been successful. If you ever have the like case again you can proceed in this way: Take from the hive all the combs and shake from them about half the bees, finding the queen and leaving her on the old stand with frames of foundation. That would be about the same as hiving the swarm there, only it would be stronger in bees. The brood with the bees that were left adhering should be put in a new hive in a new place, and a queen or a queen-cell given them, letting them build up into a good colony.

You seem a little afraid that when you removed the hive from which the swarm had issued, it reduced the old colony too much, "for only two of the old ones workt a bit in the supers." Probably that was all right. P. Schachinger, a German authority, estimates that when a colony of 20,000 bees stores a pound of honey a day, one of 40,000 bees will store four pounds. That is, the storing is not in exact proportion to the size of the colonies, but greatly in favor of the larger. Now suppose there were 45,000 bees in that colony about the time of swarming. If you had gotten them about equally divided between the swarm and the mother colony, making 22,500 in each, you might have gotten as much surplus from one as the other. Suppose it was a little more than a pound from each, that would make a little more than two pounds a day from the two. If the old one were reduced to 5,000, and 40,000 were in the new hive, then you'd get no surplus from the mother colony, but you'd have four pounds a day from the swarm. Would you rather have two colonies give you three pounds, or one colony give you four? All you want of the old colony is to have enough bees left in it so the brood will not get chilled.

C. C. M.

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

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Editorial Comments.

Slovenly Honey Marketing.—While on South Water street a week or two ago, we saw at a honey commission house a part of a shipment of some 700 pounds of comb honey that had been sent in just as it came from the hives, *supers and all.* It had not been removed from the supers—simply lifted off the hives and shipt to market. Well, it was a splendid piece of slipshod bee-keeping. The honey was of fine quality, but of course it was scarcely salable at any price, while if it had been removed from the supers, the sections nicely cleaned and put into neat shipping cases, it would have brought at least 13 cents per pound.

Of course, no reader of a bee-paper would be guilty of such a careless, shiftless way of doing things. But no doubt that same bee-keeper—had he been invited to subscribe for a good bee-paper—would have said he couldn't afford it; and yet he could afford to lose a number of dollars on a small shipment of nice honey, just because he didn't know *how* to prepare it properly for the market! "Where ignorance is bliss" it may "be folly to be wise," but it is immensely more *profitable* to have the wisdom.

◆

Low Prices of Honey, and Why.—We take the following paragraphs from Gleanings, on this subject:

> It will be noted in another column that California produced in one year about 425 carloads of honey, not including small amounts consumed locally. Arizona and Colorado are coming up rapidly to the front as honey-producing States; and one of the bee-keepers wrote the other day: "Look out for Colorado when our honey gets on your Eastern markets." With continuous honey-flows from three to six months, is it any wonder that our Western brethren can produce honey cheaply? Of course, the West has to contend with the freights; but even then, with their 600 or 700 cars of honey that is liable to appear at some seasons of the year, it is not much wonder that prices had to drop some.
>
> We are in hopes that the new comb [deep-cell] will help bee-keepers produce honey more cheaply. We shall see. One thing, however, is very gratifying. The fact that such vast amounts are produced and consumed yearly, shows that honey is coming to be more and more a staple article somewhere; for it is practically certain that no such amount could have been carried 20 years ago, even in the proportion to the population at that time.

One would think from the California report, of over 400 carloads of honey in one year, the time is near at hand when there will be an enormous over-production of honey. But we don't fear that just yet, for if every State and Territory were to produce 400 carloads of honey in any one year, that would make only about six pounds for each man, woman and child in our country! Surely, it would not be a hard matter for each one to consume six pounds of honey, when the average of sugar used in this country is reported to be about 65 pounds per capita!

But will it pay to increase the production of honey very rapidly, when now, in many places, it seems to be a drug on the market? And the wholesale price is exceedingly low, too—not much above that of the retail price of sugar. Would it not be better to put more effort, for a year or two, in the line of creating a demand for honey among the people, instead of piling up a large supply ahead of the demand?

It may be the times have something to do with the demand for honey, but just now it doesn't seem to make much difference how low the price is, for in many places few sales can be made even at a losing price. Perhaps when that "promist wave of prosperity" reaches this country, 400 carloads of honey from each State will be only as a "drop in the bucket!" But let's hope the "wave" will come ahead of the honey!

◆

Importing Honey, and Adulteration.—We have received the following statement from G. B. Lewis Co., of Wisconsin:

> GEORGE W. YORK & Co., Chicago, Ill.—
>
> *Gentlemen:*—Referring to your editorial on page 809 of the Dec. 17, 1896, issue of the American Bee Journal, we beg leave to make a few corrections. The gentleman referred to did not say that the United States does not produce enough honey. He simply said that large quantities were imported from Cuba and Jamaica.
>
> The firm referred to in your article, further say that they cannot use anything but pure honey, and that much of what is produced in the United States is adulterated with glucose, hence they cannot use it. They complain especially of honey from the Western States. They do not, however, think that the adulteration is done by the producers, but they are of the opinion that the middle-man is responsible for it.
>
> Kindly make these corrections on the article, and oblige,
> Yours truly, G. B. LEWIS CO.
> Per C. T. M.

The editorial in question was in reference to a report that an enterprising Wisconsin firm of bakers had said that the United States could not produce enough honey to supply the demand; that it was necessary to import it.

We are glad to receive the correction as given above. But we can hardly believe that *much* of the honey produced in the Western States is adulterated by any one. Still, we think there is quite a good deal of adulteration going on, and it may be it is more extensive than we think. There is no longer any question that what bee-keepers need above all things is a good National anti-adulteration law. It is impossible for them to compete successfully with glucose at one cent a pound. But until a National law is secured, we must all work for stringent State laws, which can help much to cripple the adulterators, at least in spots.

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Against Adulteration of Food and Drugs.—The following is a copy of the important portions of House Bill No. 192, relating to the adulteration of foods (which includes honey), introduced by Representative Brown, Feb. 9, 1897, in the Illinois Legislature:

> A BILL FOR AN ACT TO PROVIDE AGAINST THE ADULTERATION OF FOOD AND DRUGS AND THE MANUFACTURE AND SALE OF EITHER FOOD OR DRUGS FROM IMPERFECTLY DEVELOPT OR DAMGED MATERIALS, AS STANDARD ARTICLES.
>
> SECTION 1.—*Be it enacted by the People of the State of Illinois, represented in the General Assembly,* That no person shall within this State manufacture for sale, offer for sale or sell any drug or article of food, which is under the ordinary standard, without bearing a label indicating its inferiority, or which is adulterated within the meaning of this Act.
>
> SEC. 2.—(B.) In case of "food:" (1) If any substance or article is offered for sale or sold whose active principles are not developt or only partially so, on which its quality and

strength as a food depends; (2) If any substance or substances have been mixt with it so as to lower, depreciate or injuriously affect its strength, quality or purity; (3) If any inferior or cheaper substance or substances have been substituted wholly or in part for it; (4) If any valuable or necessary ingredient has been wholly or in part abstracted from it; (5) If it is an imitation of, or sold under the name of another article; (6) If it consists wholly or in part of a diseased, decomposed, putrid, tainted, infected or rotten animal or vegetable substance or article, whether manufactured or not; or in case of milk if it is the produce of an infected or diseased animal; (7) If it is colored, coated, polisht or powdered, whereby damage or inferiority is concealed, or if by any means it is made to appear better than it really is; (8) If it contains any added substance or ingredients which is poisonous or injurious to health: *Provided*, That the provisions of this Act shall not apply to mixtures and compounds recognized as ordinary articles of food, or ingredients of articles of food, if each and every package sold or offered for sale be distinctly labeled as mixtures or compounds, with the name and per cent. of each ingredient therein, and that they are not wholly or in part injurious to health.

We hope the Bill from which we have extracted the above paragraphs, will pass both branches of the Illinois legislature, and then be energetically enforced. The Bill also provides that $5,000 be appropriated for the enforcement of the Act, and all fines collected to be added thereto. If past it goes into effect on or after July 4, 1897.

It would be well for all our readers to write their Representatives and Senators at Springfield, Ill., to be on the lookout for this Bill, and to do all in their power to secure its passage. With such a weapon in the hands of bee-keepers, we think that all tamperers with pure honey would soon have to seek other and more promising States wherein to carry on their nefarious work.

◆

The Importation of Apis Dorsata—the giant bee of India—received no encouragement at the Lincoln convention of the North American Bee-Keepers' Association, last October. In fact, a strong resolution against their importation by the Government was past unanimously. This resolution was presented by Mr. L. D. Stilson, the Secretary of the Nebraska State Bee-Keepers' Association. We were quite a little surprised when he arose and read it, as it was the very first intimation we had that any such action was contemplated at that meeting.

After the convention was over, our most Eastern contemporary saw fit to berate several of the prominent members for favoring the passage of a resolution that they believed was all right; he even went so far as to accuse us and several others of originating the resolution, and that it was upon their suggestion that the matter was brought up for discussion. But to further show the facts in the case, we take the following from the Nebraska Bee-Keeper, written by Mr. Stilson himself:

> I have been reading with some interest the dicsussion, pro and con, of the action of the Lincoln convention inregard to the importation of Apis dorsata. Now, I wish to say that I think but one or two gentlemen knew that such a resolution was thought of until I read it and moved its adoption. As to the why I feel opposed to the importation of Apis dorsata by the general Government at this time and in the manner askt for by the Ontario County Bee-Keepers' Association, I will say:
>
> First, I do not think it is a bee that would do us any good. A score of years ago we had in our employ a bright young man. A year or so later found him on his way as a missionary to Africa. Three or four more years pass along and he revisits his boyhood home and parents in our town. While here he described animals, insects, and bees, as found in that far-off land. Altho not particularly interested in Apis dorsata at that time, yet from his descriptions, and those read later, I think they may be identical, or nearly so, and I at present believe worthless to us, other than as curiosities.
>
> Now, gentlemen, instead of growling, and throwing stones and slurs at "Root, Miller, York, or Mason," who *did not* introduce the resolution at the Lincoln convention, throw them at some one out in the Pacific Ocean. If Root or Miller or York had needed Apis dorsata in their apiaries, like gentlemen they would have inclosed a $10 bill with a well-provisioned queen-cage to some agent or missionary in far-away lands, and had Apis dorsata queens to sell to their customers before the Government agent could pack his gripsack ready to start. Whenever we have learned that Apis dorsata is *anything desirable*, it will get here.

The Weekly Budget.

Mr. W. A. Shafnit, a bee-keeper at Brighton, Iowa, died Feb. 20, of diabetes, after an illness of two weeks, though he had been in poor health for almost three years. He was 47 years of age.

Mr. M. F. Cram, Secretary of the Vermont Bee-Keepers' Association, has recently lost his father by death. This will account for the delay in sending in the convention report for publication, which appears in this number.

Mr. E. S. Lovesy, of Utah, wrote us as follows, Feb. 25: "I have been sick and also much overworkt with our local conditions. I have received letters from six States asking if I have forgotten my friends and the old American Bee Journal. I can truly say that I have still a warm heart for both."

Dr. W. B. House, in the last column on page 159, this week, asks a very pointed question. Better read all he has to say there. After reading it, just send him a 2-cent stamp, and take advantage of his generous offer. Of course you'll answer his question at the same time, and tell him that you saw it in the American Bee Journal.

Mr. Thos. G. Newman, General Manager of the National Bee-Keepers' Union, wrote us Feb. 22 as follows:

> "The Advisory Board voted long ago to 'aid Dr. Besse in his lawsuit. The fault so far is in his lawyer, who will not co-operate, and has not answered my last three letters. He [the lawyer] probably has another scheme in view."

Mr. R. C. Aikin, who, with his family, has been spending the winter in Page Co., Iowa, did not decide to settle there as he expected, but last week started for Larimer Co., Colo., where his bees and home remain yet unsold. He will work for another honey crop there. He expects to pass through southern Nebraska the latter part of this month, and see some of the Nebraska bee-keepers. We take it that he intends to return to Colorado in the same manner as he left—by horse and wagon. It will be another long and tedious ride for himself, the good wife, and dear baby.

Mr. Thomas William Cowan, the well-known English authority on bee-culture, is making quite a stay in California. As we have before announced, he is visiting his son who is located in Placer county, in the northern portion of the State. The junior Mr. Cowan is engaged in fruit-culture, and his father is of the opinion that it would be a good plan to keep a number of colonies of bees in connection with the orchard. Of course the British Bee Journal editor knows that bees and fruit go well together. He has been corresponding with some of the California bee-keepers with a view of getting a strain of Italian bees to stock his son's place. His son has never yet kept bees, and the father is anxious that he should begin with Italians. The following is what Mr. Cowan has to say upon the subject, the quotation being taken from a letter written to one of the aforesaid correspondents:

> "He [referring to his son] does not know anything about them himself, and I do not care about his beginning with hybrids, as these are, as a rule, less manageable than the pure breeds. I should not hesitate if it were for myself, as I have handled the most vicious bees, but for a novice it would be better to have pure-bred bees. I thought of Italian, as I know they are a favorite bee in America, although with us they do not do as well as the pure-bred English bee. I think it a good plan for my son to start bees, even if they do not pay for their keep, for the sake of the good they do in fertilizing the blooms, and there are only some dozen colonies kept anywhere in the neighborhood. The man who keeps them destroys his bees to take the honey. I hardly expected to find any one here doing this."

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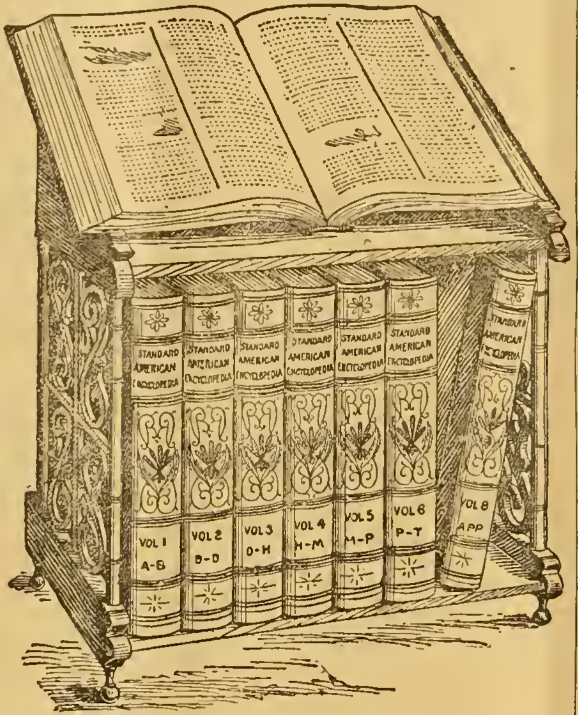

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General Items.

Wild Parsnips.

From a bed of parsnips planted in Iowa, I used volunteers or self-sown parsnips for more than 20 years, or until I removed to Kansas, in 1887, and they were as good and wholesome as any. James H. Wing.
Hamilton Co., Kans.

Bees Doing Well.

My bees are doing well, carrying in pollen and some honey. All my colonies are very strong, and have lots of stores. But give me Italian bees and the American Bee Journal, and I am at home.
Howard Risher.
Ouachita Co., La., March 1.

Good Prospects for Next Season.

Bees did a very poor business here last season—very little surplus honey—but I think they are wintering very well this winter so far. I think the prospect is pretty good for the coming season. Success to the Bee Journal. Samuel Flory.
Keokuk Co., Iowa, March 1.

Wintering Well.

My 45 colonies are wintering well on the summer stands. Not one colony is dead yet. Bees had a flight nearly every week this winter. We did not have 6 inches of snow at one time all winter. The weather is warm now, and the ground bare.
Paul Whitebread.
Luzerne Co., Pa., Feb. 26.

Everything is Lovely.

We have just had about 5 inches of rain in as many days, making a total of about 15 inches this winter, and now everything is lovely. We expect a good crop of honey, and good prices through the Exchange.

I must say that I think more of the "Old Reliable" every time I read it. I consider it one of my best friends. I wish its editor the greatest of success. B. S. Taylor.
Riverside Co., Cal., Feb. 23.

A Very Discouraging Report.

I lost 60 colonies of bees the last three years. I got some surplus the last season, the first in three years, but that was only a trifle. Hog cholera killed all my hogs—80 odd head; then a cyclone last spring demolisht one of our farms, took all the fences, etc., and entirely destroyed the house and out-buildings. It took everything I could raise to build and repair.

I can't keep bees without the American Bee Journal. L. White.
Caldwell Co., Mo., Feb. 26.

The Proposed Spelling Reform.

Editor York:—Is the extensive editorial space in this week's (Feb. 4th) American Bee Journal, devoted to the discussion of the recent attempt to change the orthography of the English language, a challenge for a discussion of the subject in that journal? It appears to me that you need not be greatly surprised if you, in the near future, receive many applications for space to air the peculiar and varied views of many of your correspondents.

While I would like to enter upon a discussion of the subject, I hold that a discussion of such topics is foreign to the best interests of the Bee Journal, especially at this time, as the minds of many of our best writers would be diverted from the main issue, and much valuable space would be filled with matter that would not help the bee-keeper in his pursuit.

Altho I do not desire the change, why

should I antagonize you in your efforts to do what you think to be right? Is not the present high state of civilization due to departures? All of man's beginnings are small. All departures do not succeed. All attempts do not revolutionize. I will let you step aside in the new way, while I will follow the old track a little further. I may turn aside, or you may return. At any rate, our journeys will end at the same place. If you succeed, *we* will have gained; if you fail, you will not have lost the respect and admiration of your friends.

C. C. Parsons.

[Mr. Parsons, we think you are exactly correct in not thinking it right to occupy space in the Bee Journal with a discussion of the proposed attempt in the line of a spelling reform. It would be out of place in a bee-paper. But we feel that, in justice, what we have said so far in regard to it was really necessary, so that all might understand our position.—Editor.]

Bees Doing Fairly Well.

The Feb. 11 issue of the Bee Journal must have been miscarried by mail, as it did not come to hand, and something seemed to be wrong all last week, it not coming. It seems we can't do without it. We have two colonies of Italian bees, which are wintering on the summer stands. It is our first experience with bees. They seem to do fairly well. They had a good flight a few days ago. I will increase my number of colonies next summer.

Gustavus Kolls.

Hall Co., Nebr., Feb. 20.

Bees Breeding—Many Frauds.

Bees have wintered well so far. They are breeding now. I have 24 colonies on the summer stands. Bees went into winter quarters rather light last fall. I got only about one-half as much surplus honey last season as the year before, but I hope for a good yield the coming season.

Give the swindlers and adulterators fits! I hope it will not be long till we can have laws in every State that will place every one of that class behind the iron bars. But the "honey frauds" are not the only ones. There is a class of dealers in the "raw fur" business who send out "flaming circulars," giving big price-lists, and when they get a shipment of furs from a "greeny," they bite him beautifully.

T. C. Kelly.

Butler Co., Pa., March 1.

A Few Honey-Recipes.

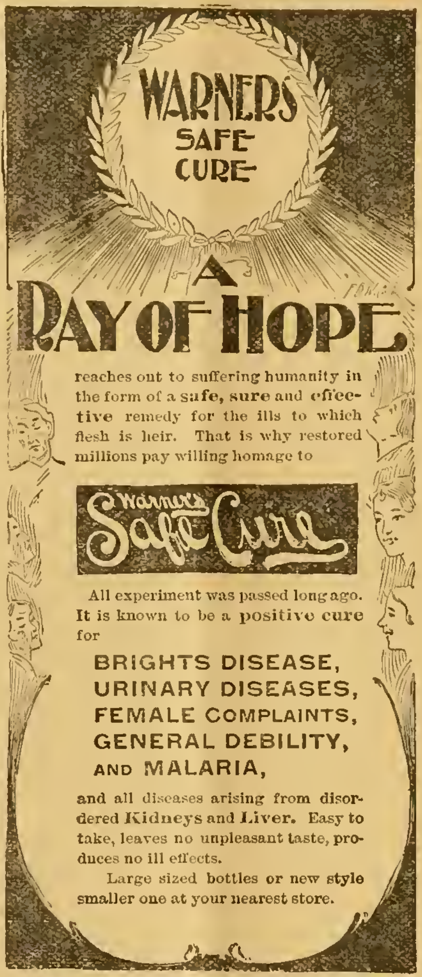
I send you a sample of grape jelly made with honey. This is the way it is made:

Grape Jelly Made with Honey.—I stew the grapes until soft; mash and strain them through cheese-cloth, and to each quart of juice add one quart of honey, and boil it until it is thick enough to suit. I keep trying by dipping out a spoonful and cooling it. If you get it too thick it will candy. Any other fruit-juice treat just the same.

Ginger Snaps.—One pint of honey, one teaspoonful of ginger, and one teaspoonful of soda, dissolved in a little water, and two eggs. Mix all, then work in all the flour possible, roll very thin, and bake in a moderately hot oven. Any flavoring extracts can be added, as you may wish.

Jumbles or Cookies can be made the same way, without any sugar or syrup, but add some shortening. In using honey for any kind of cakes, the dough must be as stiff with flour as possible, to keep them from running out of the stove.

To Spice Apples, Pears or Peaches.—One quart of best vinegar, one quart of honey, one-half ounce each of cloves and stick cinnamon. Boil all together 15 minutes, then put in the fruit, and cook tender. Put in a stone jar with enough of the syrup to cover the fruit. It will keep as long as wanted.



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I could send you more of such recipes if you want them.

W. A. Moore.

Salt Lake Co., Utah.

[Yes, we are always glad to publish tested recipes in which honey is used. We can't have too many of them. It might be well for the women-folks to cut them out as fast as publisht, and paste together in a scrap-book. You might find them very valuable, some day.

The sample of grape jelly made with honey is all right. Thank you for sending it.—Editor.]

Prospects for a Large Honey Crop.

We have some 310 colonies to commence the season with. The prospects seem favorable for a very large crop, and we have had abundant rains lately, and the honey-plants are putting forth a rank growth.

I would be pleased to learn the address of a dealer in Cyprian, Holy Land and Syrian bees and queens.

H. T. Chrisman.

Fresno Co., Calif., Feb. 1.

[Here is an invitation to some reliable queen-breeder who has them, to offer them for sale in these columns—the kind of bees and queens askt for.—Editor.]

Yellow Locust, Etc.

Bees did only fairly well here last season. They stored some surplus during the first of the season, when after that we had so much rain that it washt the nectar from the flowers, and then we had a dry spell when the bees ate most of what they had, but later on in the fall we had an excellent flow of nectar from wild asters and goldenrod, which enabled the bees to gather enough for winter stores, so I did not have to feed much.

I would like to ask a question: Is the common or yellow locust a good honey-producing tree? I have a great deal of it around me, and when in bloom I hear a noise as if bees were swarming on the trees, but a neighbor bee-keeper tells me that bees do not gather anything from the locust. How is it?

P. I. Huffman.

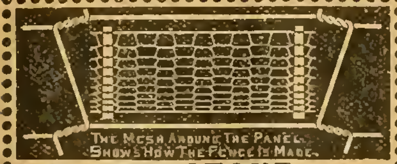
Rockbridge Co., Va., Feb. 15.

[Will some one who knows, kindly report as to the value of yellow locust as a honey-yielder?—Editor.]

Wintering Well—Clover Looks Well.

So far my bees are wintering all right. There are some bees that wintered on the summer stands in this vicinity, and they seem to be all right. I winter them in the cellar that I made two years ago out of rock, with a temperature of 40 to 42 degrees. We had some cold weather here this winter; the coldest was 21 degrees below zero, but we are having fine weather now, and everything indicates spring, but we may have some cold weather yet.

I never saw clover look as well as it does now. The prospects are good for a good crop of honey from clover. Alsike is better on low land than red clover, and it makes fine bee-pasture. It will do pretty well in a pasture. It is a true perennial. I have had it growing on my land for five years, and it is better now than it was the second year. There are about 100 acres within two miles of my apiary, which numbers 60 colonies, mostly hybrids. I prefer Italians, because they keep out moths better than the blacks. My scale colony's gain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was 215 pounds; the highest gain in one day was 11 pounds.

I produce mostly extracted honey, which I sell at 80 cents a gallon. I sell my comb honey at 10 cents a pound. I always put my bees out on the summer stands just after the first of March.

Hurrah for sweet clover! Sow it on the roadside; it is better than ragweeds.

Henry Co., Ill., Feb. 18. J. F. WIRTH.

Ants and Bees—A Fine Place.

A colony of large red ants attackt a colony of my bees one night in January, and killed the whole of them. About as many, in quantity, of the ants were killed as of bees. I took 50 pounds of comb honey from the vacated hive. This same colony was troubled with moth-worms last fall, and to experiment I put a naptha moth-ball in it on the floor. While taking the honey from this hive I watcht carefully, and not a trace of the worm could I fine.

My bees have wintered without the slightest protection; and for the past three weeks they have been as "busy as bees," gathering and bringing in pollen (and I suppose honey, too) from the wild currant blossoms. Many other shrubs and trees will soon be in bloom, also the wild flowers—the latter having begun already. This particular location is certainly a fine one for bees. Just think of it—you of the North—only about 6 or 7 days of the winter that the bees have not flown!

MRS. M. M. DUNNEGAN.
San Patricio Co., Tex., Feb. 26.

Some Alsike Clover Questions.

1. Is the hay of Alsike clover as good after it matures seed as it is before seeding?

2. Is it killed in the crook, or just after it sprouts, as easily as red clover, should a freeze or drouth strike it?

3. If it is never cut for hay will it re-seed itself?

4. Does it afford bee-pasture the first year? W. A. J. S.

Sumner Co., Tenn.

[On account of his extensive experience with Alsike clover, we askt Mr. Frank Coverdale, of Iowa, to reply to the above questions, which he did, as follows:—ED.]

1. Alsike clover holds its greenness until the seed is ripe enough to cut, and I think it makes the best hay at that time.

2. I never had any field of Alsike either dry out or freeze out. I have one field now 4 years old, and in fine shape. Some years ago I saw a fine field of it cut for seed, and it all died at once. I never knew such a thing to happen before, or since.

3. If it is allowed to ripen so that some seed shatters off, it always re-seeds very thickly.

4. If sown by itself, or with winter wheat or barley, and the season is a wet one, then bees work freely upon it in August and September, but it doesn't yield honey like it does in June the following season.

FRANK COVERDALE.

An Experience with Bees.

I started in bee-keeping two years ago. With the assistance of the "old reliable" Bee Journal, and with careful management, my efforts have been successful so far.

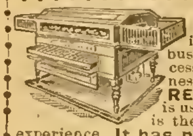
In the spring of 1895 I purchast 4 colonies, increast to 21 that season, and harvested 400 pounds of comb honey. I then built what I call a model bee-cellar, which will comfortably hold 50 colonies, in which I wintered my bees without the loss of a single colony. Having 21 to start with last spring, I increast by natural swarming to 50 colonies, and harvested 800 pounds of comb honey, which I sold in my local markets at from 12½ to 15 cents.

I use the 8-frame dovetail hive with the Hoffman frames.

My bees are wintering nicely. My self-regulating bee-cellar has kept the tempera-

RAIL ROAD LANDS
For Sale at Low Prices and on Easy Terms.

The Illinois Central Railroad Company offers for sale on easy terms and at low prices, 150-000 acres of choice fruit, gardening, farm and grazing lands located in
SOUTHERN ILLINOIS.
They are also largely interested in, and call especial attention to the 600.000 acres of land in the famous
YAZOO VALLEY
OF MISSISSIPPI
lying along and owned by the Yazoo & Mississippi Valley Railroad Company, and which that company offers at low prices and on long terms. Special inducements and facilities offered to go and examine these lands, both in Southern Illinois and in the "Yazoo Valley," Miss. For further description, map, and any information, address or call upon E. P. SKENE, Land Commissioner, No. 1 Park Row. Chicago, Ill. 8E6t
Mention the American Bee Journal



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is the first step in the poultry business and much of future success depends upon its completeness There is no failure where RELIABLE INCUBATOR is used. It is fully warranted and is the product of twelve years of experience. **It has never been beaten in a Show.** It is not like its competitors—**it is better.** We tell why in new book on poultry. Send 10c for it.
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THE KEYSTONE
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It is humane, rapid and durable. Fully warranted. HIGHEST AWARD AT WORLD'S FAIR. Descriptive circulars FREE.
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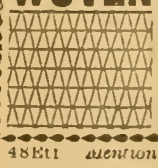

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Best on Earth. Horse-high, Bull-strong, Pig and Chicken-tight. With our DUPLEX AUTOMATIC Machine you can make 60 rods a day for
12 to 20 cts. a Rod.
Over 50 styles. Catalogue Free.
KITSELMAN BROS.,
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48Etf *Mention the American Bee Journal.*

FOR SALE At Beeville, Tex.—200 Colonies of first-class Italian Bees. $600 cash, to close out. Address,
10A4 S. A. LEEDS, Avery Island, La.
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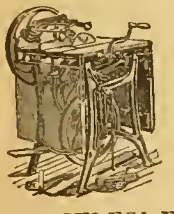
Write to-day, mention this paper, and send 4 cents to pay postage and I will send you a liberal package of Buckbee's Monarch Cucumber—a world beater, together with my new Buyer's Seed Guide, the most attractive and instructive seed and plant book published.

H. W. BUCKBEE, ROCKFORD SEED FARMS,
P. O. Box 537 ROCKFORD, ILL.



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Can do the work of four men using hand tools, in Ripping, Cutting-off, Mitring, Rabbeting, Grooving, Gaining, Dadoing, Edging-up, Jointing Stuff, etc. Full Line of Foot and Hand Power Machinery. Sold on Trial. Catalogue Free.

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OUR LARGE GUIDE for '97 just out. Something entirely new. 100 pages. Printed in finest colored work. Contains everything pertaining to Poultry in full. **PRICES REDUCED** on 1st Prize Winners and Eggs. Postpaid on receipt of 15 cents, if you write now.
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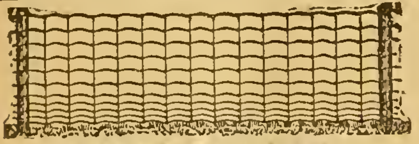
10A13t *Mention the American Bee Journal.*

ROOT'S GOODS. Get discounts on early orders for 1897. A. I. Root Co.'s Bee-Supplies always on hand. Better prepared than ever to fill orders promptly. 36-page Catalog free.

JOHN NEBEL & SON, High Hill, Mo.
Mention the American Bee Journal. 4Atf



FARMING DON'T PAY.

So says Jones, and he resolves to become a "manufacturer." He buys a fence machine, a "county right,' etc., and starts in to compete with **steam** and **capital.** His neighbor Smith invests same amount in "feeders," thus realizing a good price for his crops, enriching his farm, and enabling him to "lift the mortgage" and fence with **Page,** while Jones "goes to the wall."

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.
Mention the American Bee Journal.

The Danzenbaker Hive

PATENTED
10-12

Has valuable features possest by no other, and is surely winning its way; **was awarded a Special Diploma, and 1st Premium for COMB HONEY, at Mich. State Fair, 1896.**

Address,
Francis Danzenbaker, Medina, Ohio.
Care The A. I. Root Company.

WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

ture at 42 degrees all winter, scarcely varying a degree, notwithstanding the many severe changes of weather that we have had here this winter.

Our main drawbacks here in bee-keeping are the short seasons for gathering honey, and the long winter confinement. Our main honey crop is gathered from basswood and white clover, of which we have an abundance, but on account of wet weather last season the crop was light.

We have not seen the ground here since Thanksgiving Day. The snow has been accumulating all winter, until it is three feet deep at present. No wonder we are longing to hear the hum of the honey-bee.

C. S. FRENCH.

Todd Co., Minn., Feb. 20.

* * *

Doolittle's Figuring Corrected.

On page 81, Mr. Doolittle does some figuring. I saw that the figuring was not wholly correct, and would on that score send the correct arithmetic. When, however, Mr. Doolittle, a few lines further on, challenges us (his readers) to "show wherein"—well, I never forego a dare.

Mr. Doolittle will not mind, because the correct figuring will only strengthen the point he was making. He says:

"But the honey is to be of the same grade, so I have only a quarter more in pounds for the same value in labor, to figure on. Hence, as a quarter of 22 cents is 5½ cents, which, taken from the 22 cents, would leave 16½ cents, we have this as the figure at which we can sell extracted honey of the same grade, when comb honey is selling at 22 cents."

Obviously we should take one-fifth of 22 cents, which is 4 2-5 cents, and this taken from 22 cents leaves 17 3-5 cents as the price for the same grade of extracted honey when comb sells at 22 cents.

I need not enter into the reason for the one-fifth instead of the one-fourth. The mistake is an easy one to make. I simply offer the following case in point: 24 pounds of comb honey at 22 cents will bring $5.28; 30 pounds of extracted honey to bring the same must sell at 17 3-5 cents.

Bees are wintering finely here.

ALLEN LATHAM.

Norfolk Co., Mass., Feb. 23.

* * *

Flowers in Bloom.

The hills some 30 miles southeast of here in this county, are covered with snow. These hills would be called mountains in the East—they are probably 2,000 feet high. The snow will remain on them but a few days. All through the valley calla-lilies and other tender flowers are a-bloom. We have had plenty of rain, and the year bids fair to be a very propitious one.

W. A. PRYAL.

Alameda Co., Cal., Feb. 23.

* * *

Prospect is Good.

Bees seem to be doing the very best on sunny days; as on all others, not one starts out. Of course you remember how they would not stay in the hives those years, long ago, when so many died, and spring dwindling and pollen figured as unknown theories. Our winter has been steady, cool, and bright, and the prospect is good.

T. F. BINGHAM.

Clare Co., Mich., March 3.

California ⁂

If you care to know of its Fruits, Flowers Climate or Resources, send for a Sample Copy of California's Favorite Paper—

The Pacific Rural Press

The leading Horticultural and Agricultural paper of the Pacific Coast. Published weekly, handsomely illustrated, $2.00 per annum. Sample Copy Free.

PACIFIC RURAL PRESS,
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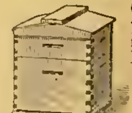

Of Bee-Hives, Sections, Shipping-Cases, Comb Foundation, and **Everything** used in the Bee-Industry.

I want the name and address of every Bee-Keeper in **America.** I supply Dealers as well as consumers. Send for catalogs, quotations, etc. **W. H. PUTNAM,**
RIVER FALLS, Pierce Co., WIS.
Mention the American Bee Journal.

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Root's Goods at Root's Prices.

BEE-KEEPERS' SUPPLIES in general, etc etc
Send for our new catalog.
"**Practical Hints**" will be mailed for 10c. in stamps. Apply to—
Chas. F. Muth & Son, Cincinnati, Ohio.
Mention the American Bee Journal.

"Watch Pouder's ad"

SEE THAT WINK!

Bee-Supplies! ROOT'S GOODS at Root's Prices.

Pouder's Honey-Jars, and every thing used by bee-keepers. Prompt service, low freight rate. Cat. free. Walter S. Pouder,
162 Mass. Ave.,
INDIANAPOLIS, INDIANA.

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☞ IF YOU WANT THE

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That covers the whole Apicultural Field more completely than any other published, send $1.25 to Prof. A. J. Cook, Claremont, Calif., for his

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Liberal Discounts to the Trade.

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30 years' experience. If your case is sufficiently serious to require expert medical treatment, address
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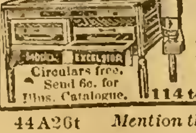

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Simple, Perfect, Self-Regulating. Thousands in successful operation. **Lowest priced first-class Hatcher made.**
GEO. H. STAHL,
114 to 122 S. 6th St. Quincy, Ill.

Circulars free.
Send 6c. for Illus. Catalogue.

44A26t *Mention the American Bee Journal.*

Early Italian Queens

Up till the middle of April at these prices:
Untested, 75c.; Tested, $1.25.

E. L. CARRINGTON,
5A17t **De Funiak Springs, Fla.**
Mention the American Bee Journal.

Yell, O Yell, O'YELLOWZONES
Yellowzones for **PAIN** and **FEVER.**

HONEY and BEESWAX

MARKET QUOTATIONS.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

NO. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

Chicago, Ill., Feb. 18.—Fancy white, 12c.; No. 1, 10@11c.; fancy amber, 8@9c.; No. 1, 7c.; fancy dark, 7@8c.; No. 1, 7c. Extracted, white, 5@7c.; amber, 5@6c.; dark, 4@5c. Beeswax, 25@26c.

Very little demand, considering season of the year.

Albany, N. Y., Mar. 6.—Fancy white, 12-13c.; No. 1, 11-12c.; fancy dark, 7-8c.; No. 1, 6-7c.; Extracted, white, 5½-6c.; dark, 4-5c.

The honey market is very quiet and stock moving very slowly, even at reduced prices. White clover is not plentiful. Extracted is moving very slowly, but we hope for an improved demand soon.

Indianapolis, Ind., Feb. 20.—Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Boston, Mass., Feb. 20.—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Cleveland, Ohio, Feb. 20.—Fancy white, 14½@15c.; No. 1 white, 12½@13c. Extracted, white, 6@7c.; amber, 4½@5½c. Beeswax, 22@25c.

There is not very much honey in our market. Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

Kansas City, Mo., Feb. 19.—No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 9@10c.; No. 1 dark, 8@10c.; Extracted, white, 5½@6c.; amber, 5@5½c.; dark, 4@4½c. Beeswax, 20@25c.

St. Louis, Mo., Feb. 19.—Fancy comb, 12@@13c.; No. 1 white, 11@11½c.; amber, 9@10½c.; dark, 7@8½c. Extracted, white, in cans, 6@7c.; amber, in barrels, 4@4½c; extra, 5c.; dark, 3@4c. Good demand for barrel stock—comb slow sale. Beeswax, 23@23½c.—prime finds ready sale at 23½c.

San Francisco, Calif., Feb. 24.—White comb, 9-10c.; amber, 5-7c. Extracted, white, 5-5½c.; light amber, 4-4½c.; amber colored and candied, 3¾c.; dark tule, 2¾c.

Beeswax, fair to choice, 23-26c.

Philadelphia, Pa., Feb. 2.—Fancy white comb, 12-13c.; fancy amber, 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3½-4c. Beeswax, 25c.

Season is getting over for comb honey—very little demand. Extracted in good demand.

Detroit, Mich., Mar. 6.—Fancy white, 13-14c; No. 1, 12-13c.; fancy amber, 11-12c.; No. 1 amber, 10-11c.; fancy dark, 9-10c.; No. 1, 8-9c. Extracted, white, 5½-6c.; amber, 5c.; dark, 4-4½c. Beeswax, 25-26c.

Cincinnati, Ohio, Feb. 20.—No. 1 white, 12@13c.; No. 1 amber, 10@12c.; dark, 8@10c. Extracted, 3½@6c., according to quality. Demand is slow for all kinds of honey.

Beeswax is in fair demand at 22@25c. for good to choice yellow.

New York, N. Y., Feb. 20.—There has been a little better demand for comb honey during the last two weeks. Prices, however, will not improve, as the season is too far advanced and plenty of stock laying on the market. We have a good demand for extracted buckwheat, candied, and bee-keepers having their crop on hand yet, should now market it.

Beeswax is quiet at 26 28c., according to quality.

Minneapolis, Minn., Feb. 20. — Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Buffalo, N. Y., Mar. 5.—Demand a little better, but 10c. continues the prevailing price for strictly fancy 1-pound comb. Occasionally 11c., perhaps, in a peddling way. Other grades range from 8@4c., as to kind and quality, etc. Extracted, 4@5c.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN,

Kansas City, Mo.
C. C. CLEMOMS & Co., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
WILLIAMS BROS., 80 & 82 Broadway.

St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.
S. H. HALL & Co.

Milwaukee, Wis.
A. V. BISHOP & Co.

Boston, Mass.
E. E. BLAKE & Co., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. MCCULLOCH & Co., 380 Broadway.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central avs.

Honey - Clovers !

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
Alsike Clover	$ .70	$1.25	$3.00	$ 5.75
Sweet Clover (white)	.60	1.00	2.25	4.00
White Clover.......	.90	1.60	3.75	7.00
Alfalfa Clover.....	.60	1.00	2.25	4.00
Crimson Clover....	.55	.90	2.00	3.50

Prices subject to market changes.

Add 25 cents to your order, for cartage, if wanted by freight.

Your orders are solicited.

GEORGE W. YORK & CO.,
CHICAGO, ILLS.

One Cent invested in a postal card will get my large Catalog of All Root's Goods. Send list of what you want, and get price.

M. H. HUNT, Bell Branch, Mich.

WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

PATENT WIRED COMB FOUNDATION

Has No Sag in Brood-Frames

Thin Flat-Bottom Foundation

Has No Fishbone in the Surplus Honey.

Being the cleanest is usually worked the quickest of any Foundation made

J. VAN DEUSEN & SONS,
Sole Manufacturers,
Sprout Brook Montgomery Co., N. Y.

Mention the American Bee Journal.

What Ails the A. B. J.?

NOTHING, perhaps. But I'm using it as a medium for telling you about YELLOWZONES, and since my first ad.—Dec. 17, '96, have rec'd only 8 replies, while from the ad. in the other bee-papers I am receiving ABUNDANT returns.

Bro. York and His Force use them, and speak of them highly—see pages 809 and 812, Dec. 17th.

They are Guaranteed to Please you, and I might almost guarantee you'll become a permanent customer, from the fact that nearly all the hundreds of bee-keepers who have ordered them once HAVE ORDERED REPEATEDLY.

Yellowzones are an Honest, Efficient remedy for all Fevers, Headache, Colds, Grip, Neuralgia and Rheumatism—especially serviceable in the GRIP.

Here's from Dr. A. B. Mason, Feb. 8,'97: "I shall telegraph you this morning for Yellowzones, and you'll find pay enclosed. Mrs. M. has the Grip, and they have helpt her materially. Didn't know they were so near gone, or I would have telegrapht yesterday."

☞ You'll do best to order 6 Boxes, but just to find whether you do or don't read the A. B. J. ads., here's an offer—Send me a 2-ct. stamp, and I'll send you a 10-ct. sample You'll find them the most satisfactory remedy you ever used for general household emergencies.

1 Box, 18 tablets, 25 cts.; 6 Boxes, $1.

W. B. HOUSE, M. D.,
Drawer 1, DETOUR, MICH.

Mention the American Bee Journal.

Pacific Coast Bee-Keepers !

—*BUY YOUR*—

Dovetailed Cedar Hives

Direct from the Factory. Guaranteed equal to the best goods on the market.

Send for Price-List.

Rawson & Barner, Centralia, Wash.

10A13t Mention the Am. Bee Journal.

STRICTLY PURE

! BEESWAX !

Bee-Keepers and Accumulators in the U. S.,

ATTENTION !

It may be of advantage to you communicate with us if you have Pure Yellow Beeswax for sale. No impure wanted. We are buyers.

Address, **BARGET & HEID,**
8 S. William St., - NEW YORK, N. Y.

Mention the American Bee Journal. 8A4t

Golden Adel Albino

Texas Queens !

Dr. Gallup says they are the best he has in his yard.

J. D. GIVENS, Lisbon, Tex.

Mention the Bee Journal. 9A26t,

GAMES FREE & useful articles for only 2-6mo. subs to PoultryKeeper at 25c. Every poultry raiser wants this leading poultry paper. Sample free. Address POULTRY KEEPER CO., Box 44 Parkesburg, Pa.

Mention the American Bee Journal.

Convention Notices.

Texas.—The next annual meeting of the Texas State Bee-Keepers' Association will be held at Greenville, Wednesday and Thursday, April 7 and 8, 1897. All are cordially invited to attend.

Utah.—The Utah State Bee-Keepers' Association will hold its semi-annual meeting in the City and County Building, Salt Lake City, April 5, 1897, at 10 a.m. All are invited to come and bring your friends. A full program in the interest of the industry will be presented, among other subjects to be considered being the best method of marketing our products, and how to best protect the bees from foul brood and other diseases. In union is strength, and by industry we thrive. The Association needs your aid; then let all do their full duty, for their own interest and for mutual benefit and self-preservation.

Salt Lake City, Utah. E. S. LOVESY, Pres.

FREE —A Copy of— Successful Bee-Keeping, by W. Z. Hutchinson; and our 1897 Catalog, for 2-cent stamp, or a copy of the Catalog for the Asking. We make almost Everything used by Bee-Keepers, and at Lowest Prices. OUR

Falcon Polisht Sections

are warranted

Superior to All Others.

Don't buy cheaply and roughly made Goods, when you can have the best—such as we make.

The American Bee-Keeper

[monthly, now in its 7th year]

36 Pages—50 Cents a Year.

SAMPLE FREE—ADDRESS,

THE W. T. FALCONER MFG. CO.,
JAMESTOWN, N. Y.

Mention the American Bee Journal.

BEE-KEEPERS! Let me send you my 64-page Catalog for 1897.

J. M. Jenkins, Wetumpka, Ala.

Mention the American Bee Journal.

Beeswax Wanted for Cash

Or in Exchange for

Foundation—Sections—Hives or any Other Supplies.

Working Wax into Foundation for CASH **A Specialty.**

☞ Write for Catalog and Price-List, with Samples of Foundation and Sections.

GUS DITTMER,
AUGUSTA, WIS.

Mention the American Bee Journal.

LEADS THEM ALL!

Williams' Automatic Reversible Honey-Extractor

LEADS THEM ALL. **You want the best.**
Price-List Free.

Van Allen & Williams, Barnum, Wis.

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BEST ON EARTH!!

18 years the Standard. The 4-inch "Smoke Engine." Is it too large? Will it last too long? Will save you lots of money and bad words. Send for Circular. 6 sizes and prices of Bingham Smokers and Knives.

T. F. BINGHAM, Farwell, Mich.

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TO REDUCE STOCK!

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On all Kinds of Supplies

During March.

☞ Orders amounting to $5 or more will be delivered f. o. b. cars Springfield, Ills.

W. J. Finch, Jr., Chesterfield, Ills.

10A13t Mention the Am. Bee Journal.

Mention the American Bee Journal.

WANTED —**Gardener and Bee-Keeper** at summer home in New Hampshire; one man who is competent for both positions and has had experience; young man preferred; must be of good character and habits; references required. Engagement until fall certainly, and perhaps permanent if satisfactory. Address with particulars and state wages expected—**J. J. GLESSNER,**
1800 Prairie Avenue, CHICAGO, ILL.

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20th Year **Dadant's Foundation** 20th Year

Why Does It Sell So Well?

Because it has always given better satisfaction than any other.

Because **IN 20 YEARS** there have not been any complaints, but thousands of compliments.

We Guarantee Satisfaction.

What more can anybody do? **Beauty, Purity, Firmness, No Sagging, No Loss. Patent Weed Process of Sheeting.**

Send Name for Our Catalog, Samples of Foundation and Veil Material. We sell the best Veils, cotton or silk.

Bee-Keepers' Supplies of All Kinds.

LANGSTROTH ON THE HONEY-BEE, Revised.
The Classic in Bee-Culture—Price, $1.25, by mail.

CHAS. DADANT & SON,

Please mention the Am. Bee Journal. **HAMILTON, Hancock Co., ILL.**

4¼ SECTIONS 4¼ SECTIONS

Our business is making Sections. We are located in the basswood belt of Wisconsin; therefore the material we use cannot be better. We have made the following prices:

No. 1 Snow-White.		No. 1 Cream.	
500	$1.25	500	$1.00
1000 at	2.50	1000 at	2.00
3000 at	2.25	3000 at	1.75
5000 at	2.00	5000 at	1.50

If larger quantities are wanted, write for prices.

Price-List of Sections, Foundations, Veils, Smokers, Zinc, Etc., Sent on application.

6A35t **MARSHFIELD MFG. CO., Marshfield, Wis.**

Cut Prices to Move Stock!!

There are a few items of desirable stock left of the goods secured of Thomas G. Newman when we took charge of his supply business here. In order to close these out and make room for fresh, new goods, we have decided to offer these at prices which will make them go.

The following is the list, which will be corrected as the stock is sold; if you see what you want here, order AT ONCE, or you may be to late:

V-Top Langstroth Frames, 75c per 100; 250 for $1.25; 500 for $2.
All-Wood Frames, pierced for wire, same price while they last.
50 Comb Honey Racks, to hold sections on the hive, flat, $1.00 for the lot.
No. 3 VanDeusen Thin Flat-Bottom Fdn., in 25-lb. boxes, $10.50 a box.
Wakeman & Crocker Section-Press, 50c each (old price, $1.25).
Townsend Section-Press, 50c. (old price, $1.)
Hill Feeders, quart size, 8c each, 75c per doz. (less than half old prices).
Hill Smokers, 40c each; by mail, 60c.
Quinby Smokers at 50c, 70c, and $1.00 each—20c extra by mail.
Jones' Frame-Pliers, 10c each; by mail, 10c extra (old price, 25c and postage.)

1896 Dovetailed Hives at Special Prices.

Desiring to make room for new goods, we offer from stock at this branch, No. 1 Dovetailed hives, 8-frame complete, with sections, foundation-starters, and nails, at $5.75 for 5; $10.50 for 10; $20.00 for 20; No. 1E, same without sections and starters, $4.75 for 5; $8.50 for 10; $16.00 for 20; 10-frame complete, 20 cts. each extra; 10-frame E, 15 cts. each extra. Other Hives in stock at a similar reduction.

If wanted by Freight, add 25c for cartage on orders for less than $5

THE A. I. ROOT COMPANY,

Geo. W. York, Manager. 118 Michigan Street, CHICAGO, ILL.

AMERICAN
BEE JOURNAL
DEVOTED EXCLUSIVELY TO THE INTERESTS OF HONEY PRODUCERS

37th Year. CHICAGO, ILL., MARCH 18, 1897. No. 11.

See the Wonderful Combination Offer
ON PAGE 170.

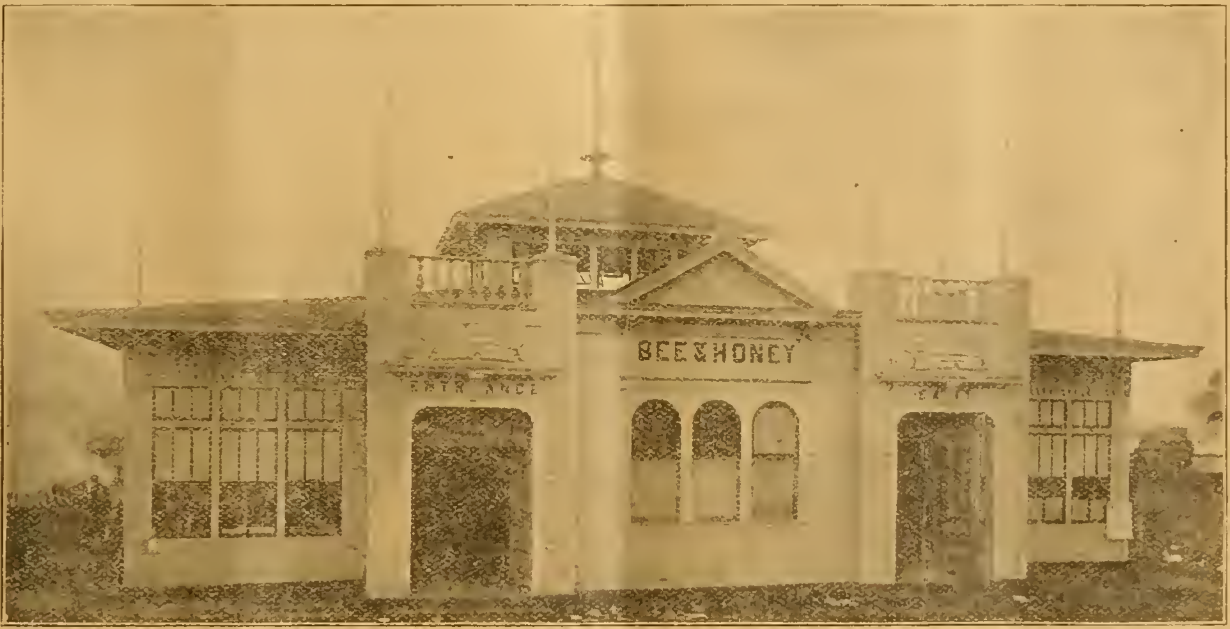
To every person who receives this number of the American Bee Journal we make a most magnificent offer. It is made to New or Old subscribers, and ought to bring us thousands of subscriptions right away. The Woman's Home Journal is one that will delight and interest and educate the women folks for 12 months; and the book—"Samantha at Saratoga"—is just brimming over with healthy humor. The book and woman's paper are alone are well worth all that is askt for the combination which also includes a year's subscription to the American Bee Journal. (See page 170.)

Of this number of the Bee Journal we will send out just 10,000 copies, many of them to those who are not now regular readers. All such are specially invited to subscribe for it, and begin to receive its weekly visits. It will surely pay to do so, if at all interested in bee-keeping.

Should there be any *new* subscribers that would prefer to have the Bee Journal alone, we will send it to such, from the time we receive their subscription to the end of this year, for *only 60 cents.* This offer is made only to induce those not now getting the Bee Journal, to give it a fair trial. After that, we believe they will not try to do without it.

We hope our present subscribers will show these two generous offers to their bee-keeping friends, and endeavor to get them to send in their order at once. *We* are trying to do our *very best* for the interest of all bee-keepers, and we believe they appreciate our efforts fully, and will now do what they can to help on the success of the old American Bee Journal.

GEORGE W. YORK & CO., Publishers.



Nebraska Bee and Honey Pavilion, State Fair Grounds near Omaha.- See page 168 also.

Contributed Articles

Several Visits—Nebraska Apiarian Building.

BY EDWIN BEVINS.

On the last day of August, 1896, I started for Omaha, to visit some relatives I had not seen for many years. When I got to Osceola I found that I should have to wait a few hours for a west-bound train. In order to pass away the time I inquired of a man who was working about the station if he could direct me to some one in or near town who kept a goo many bees. He told me to go down a street leading south from the station, then turn to the right and go till I reacht the next street, then go on a little farther south and I would find a man named M——, who kept bees.

I started out with pleasing anticipations of having an hour or so of talk with a man who could bee by the book, and who was managing an apiary by the aid of all or most of the modern apiarian appliances. Forgetting my instructions when I reacht the first street running east and west, I turned to the left instead of turning to the right, and then when I reacht the next street running north and south I went on south, but saw no signs of a bee-keeper around any of the dwellings in that part of the town. Seeing the tops of some buildings beyond a rise in the road ahead of me, I concluded the bee-keeper must be over there. The road led me along the east end of a graveyard, and terminated a little beyond the graveyard at a building which showed unmistakable signs of being a slaughter house. This arrangement did not seem to me to be exactly in accord with the fitness of things, but I did not feel disposed to quarrel with the arrangement much, so long as it was *I* that did not have to "pass through a slaughter house to an open grave."

Retracing my steps past the graveyard, I made inquiry in the outskirts of town, and soon found where the bee-keeper lived. He was not at home, but some one, I presumed to be his daughter, told me that I could look at the bees. After a little search, I found them in the midst of weeds and grapevines and cornstalks and potatoes. This man, who kept a good many bees, had *five* colonies. Four of them were in box-hives, and the other one was in an 8-frame dovetailed hive, from which the paint was mostly gone, and it seemed to be terribly loose at the joints. Then I sadly retraced my steps to the station.

APIARIAN EXHIBIT AT THE NEBRASKA FAIR.

When I reacht Omaha, I found the Nebraska State Fair was in progress there. I spent a portion of two days on the Fair Grounds, and as might be expected, the larger share of this time was past in the spacious building devoted to bees and honey. I was very much pleased to find an Iowan there with by far the largest and most attractive exhibit in the building. Mr. Kretchmer's exhibit consisted of bees, honey, and apiarian supplies. I was particularly struck with the completeness of his exhibit of supplies. On my return, I was told by a resident of the place where Mr. K. does business, that Mr. Kretchmer is doing a good business there, and that his business is a great help to the town.

In one corner of the Bee and Honey building I found Mr. Stilson with an exhibit of honey and supplies. He had also quite a large lot of sweet clover seed, and was showing the "White" combined section-press and foundation-fastener. This seemed to me to be a good thing for the work it is designed to do, and I wondered why its sale had not been pusht outside of Nebraska.

Next to Mr. Stilson was Mr. Whitford, with an exhibit of honey and supplies. I had a talk of half an hour or so with him that was interesting to one of us, I am sure.

Farther along was Mr. Stolley's exhibit of sweet clover honey. Mr. Stolley was not in the building while I was there. There were some fair exhibits by other Nebraska bee-keepers, but none that approacht in magnitude that of Mr. Kretchmer's.

Decatur Co., Iowa.

More Information About Honey-Vinegar.

BY C. P. DADANT.

I am askt to answer the following questions in the Bee-Journal:

"Please tell us more about honey-vinegar. Can it be used in pickling, and all other purposes, the same as other first-class vinegar? Can it be sold to the grocery trade?—SUB."

Honey-vinegar may be used for the same purposes as the very best cider-vinegar. It has the qualities, with the better flavor that honey gives it. We use it in pickles, in salads and in cooking. Ordinarily, it is too strong for pickles and has to be reduced by the addition of water. A good housekeeper generally knows by the taste what proportion of water should be added to the vinegar, for pickles.

For salads, it would be a mistake to add anything to it, the proper way is to use a smaller quantity than if the vinegar was weak. French salad dressing is made with olive oil, good vinegar, pepper and salt and a shade of garlic. Fastidious people, who like garlic, but fear the after-taste, use it sparingly, by simply rubbing the garlic over a crust of bread which is cut up in the salad. The salad should be drest on the table, just as it is wanted, for the vinegar and oil wither the green plants of which it is made, and destroy their flavor, if it is allowed to stand any length of time. A tablespounful of vinegar should be sufficient, if the vinegar is good, for a salad for half a dozen guests. If you ever try French salad with honey-vinegar, you will never want to use any other kind.

Honey-vinegar sells to grocers, but not to all grocers indiscriminately. Many grocers cannot be coaxt into trying it. Their custom wants cheap goods, and cheap goods they must have. The vinegar for these dealers is to be had for five to ten cents per gallon. What it is made of is of no consequence. If it is only malt vinegar, or cheap cider vinegar, it is sufficiently healthy and although perhaps not very good, it will not injure those who use it; but if it is pyroligneous acid, or, worse yet, cupric acetate, or oil of vitriol weakened with water, it is a danger to those who use it. Those who buy vinegar make a mistake when they buy a cheap product. A family does not use a dollar's worth of vinegar in a year, and those who understand the risks that they run in using a poor article very readily see that it is bad economy.

Those grocers, who are anxious to sell nothing but the best goods, very readily buy the honey-vinegar, and after it is introduced, it usually sells for twice the price of the cheap article. We sell several barrels of it every year, and have customers who buy nothing else in the way of vinegar. We wholesale it to the grocers at 20 cents, and the retail price usually 30 cents a gallon. We are not the only ones who make it a practice to sell honey-vinegar. Messrs. Muth & Son, of Ohio, tell us that they make and sell some 40 barrels every year, and they say as we do, that it is not necessary to run in competition with the cheap article, as the better trade will readily pay the better price for a superior article.

Let the reader bear in mind that the only healthy vinegar is that which contains animal life, unless this animal life has been destroyed by heat. This assertion was insisted upon particularly a few weeks ago by a microscopist who delivered a lecture in our city. He had with him a microscope of great magnifying power, the wonders of which were displayed by the aid of a calcium light, throwing the shadows upon a wall, and the audience was plainly shown thousands of *vibriones*—wriggling like snakes in *a drop* of *good* vinegar. Through the microscope these vibriones seemed a foot or more in length, but it is a fact that they may be easily noticed with the naked eye. Whether they are a cause or a result of the acetic fermentation is not known.

To sum up this additional article on honey-vinegar, allow me to advise the correspondent to try the honey-vinegar on a small scale. Making vinegar out of honey should not be considered a good way to get rid of one's crop of honey, especially if this crop amounts to thousands of pounds, but by judicious management one may make and sell several barrels of vinegar each year, out of residues of honey, such as the washings of cappings, soured honey and remnants that might otherwise be lost.

Hancock Co., Ill.

Numerous Experiments in Feeding Bees.

BY F. A. SNELL.

As a result of the poor season of 1896 in many parts of our country, a good many colonies will be short of stores when spring opens, and their condition will demand early attention and feeding—in fact, early feeding will be a necessity to save the bees, and bring them into a condition so the queens will lay, and the strength of the colonies kept up, for it is a well-known fact among bee-keepers that bees short of stores will rapidly dwindle in early spring, if not result in their starving outright.

I have done more or less feeding since the early '60's. Formerly, my bees were in box-hives, and the colonies short of stores were put into the cellar to winter, the hives inverted, and pieces of comb honey laid over the combs, as a supplement to their scanty supply, gathered the previous season.

Later, I transferred my bees all into movable-comb hives. Then, like all beginners, I desired a too rapid increase, and as a result I had too many weak colonies, which had to be fed in winter and during the spring. I tried different methods in practice at that time. Some were fed candy, and wintered fairly well; three were fed sorghum molasses, as was advised by some writer. These three colonies went where the woodbine twineth, long before spring, as might have been expected. Only good honey, syrup from granulated sugar, or candy made from that grade of sugar, are fit for winter stores.

Upon the advent of the honey extractor I was quick to bring one into use. The extracting was done from the brood-chamber at that time, and the first season that I used it I emptied all of the combs that contained very much honey, filled during clover and basswood bloom. Owing to a drouth later, that season we had but little fall honey, and, as a result, the part of my apiary run for extracted honey was deficient in food for winter. I resorted to feeding, using honey largely for the purpose. Then, and since, I have tried various methods. I have used dishes filled with honey or syrup, with pieces of combs to keep the bees from drowning, cloths, sticks, etc. I have used entrance feeders, fed by tipping the hives back and pouring the feed into the hive-entrances; atmospheric feeders, cans, and the like, also sack feeders in a small way.

For spring, to test the merits as to increasing brood-rearing, by feeding, in our location, I doubt very much the advisability of feeding for this purpose, but where the spring bloom is it may be very desirable, and of considerable value. Whatever food is given, should not be too thick—it should not be as thick as well-ripened honey.

After trying most of the bee-feeders in use, I find none equal to that of J. A. Golden. It is so handy, economizes the heat; it is used just over the brood. The feeder is set in a surplus case used for 4¼ sections. The food receptacle can be made shallow or deep, as desired. If shallow, for stimulative spring feeding, a mat can be placed over the feeder proper, and the hive cover on this, thus retaining the heat to the maximum.

I am yet feeding a little each spring to further test the matter in the way of increast brood-rearing. We sometimes have a dearth of bloom between apple, raspberry, etc., coming early, and clover at the opening of summer. In this case, feeding will be very useful. For general purposes I reserve brood-frames filled with honey to supply any colonies deficient in honey, and prefer it to any other plan.

The beginner should not strive to more than double his colonies any year. Try to keep all strong. Feeding for winter, except in extremely poor seasons, will not then be needed. It does not pay to extract all honey and feed back syrup for winter food. I prefer hives or brood-chambers large enough to hold honey enough to last until May. I have tried small ones to my heart's content.

Carroll Co., Ill.

Things That are Worth Remembering.

BY MRS. L. C. AXTELL.

To feed the bees in seasons when they cannot get a living themselves, and thus preserve alive "the goose that lays the golden egg."

To have the supers on the hives before the bees get the swarming fever—a little too early is better than too late.

To have everything in readiness for swarming time.

To keep cool and collected when bees are swarming.

To put all bee-utensils in place when done using them, instead of leaving things lying around helter-skelter, which will often cause much loss of valuable time in hunting them.

And to keep a little reserve strength for emergencies.

LOOSENING HONEY IN SUPERS.

When taking honey from the hives, if the supers are inverted, and laid upon a honey-board, and then piled one upon the other, nearly all the sections will break loose from the super and slip down upon the board, so they are easily removed from the super. This refers to honey taken from the hives in warm weather, and supers having a bee-space above the sections.

Should there be sections only partly filled, it would not be well to turn the sections bottom upwards, as some would be apt to crinkle down or fall over edgewise.

If full supers taken off the hives late in the fall are inverted, and strips of wood a bee-space thick (or as thick as the bee-space above the section in the super) were laid on each row of sections, and the supers piled one above another, their weight would press them loose if in a warm room, and I think probably they would loosen even if in a cold room, but I am not sure.

If full supers are inverted on the hives a few days before taking off, the bees nicely fill out all vacant places, and seal them in nearly all around, but they soil the sections badly with propolis, sealing the two sections together where the top one rests upon the under one. Sometimes it will be difficult to remove them from the hives—they will stick so. So it is not advisable to turn supers over while on the hives.

MAKING HONEY-VINEGAR.

This is easily made by throwing into a jar all scraps and scrapings of clean refuse honey, and pouring in the jar warm rain-water (well water will answer), and into the same jar pour in all fruit-juices or jellies or preserves that have soured, or settlings from the vinegar and mothers that gather on top of the vinegar.

If the honey-vinegar is wanted to be white, I would not put in grape or any dark fruit-juices, but an amber vinegar that does not look darker than cider sells just as well as a white vinegar. Of course, it should not freeze; I keep mine in the kitchen or pantry until it gets partly soured, then drain it from the settlings into the large jar with my other vinegar. I can never get barrels hoopt tight enough to hold vinegar if kept in the cellar. Even if the bung is left out and the opening covered with a cloth, the iron hoops always burst or the barrel springs a leak, and I lose my vinegar every time, before I find it out. So, of late years, I have been using 10-gallon jars, and cover with a cloth and board, which lets in just air enough to cause it to come quickly.

If my vinegar shows signs of having those "vinegar eels" in it, I scald and skim it, and wash out the jars carefully, and tie cloths over tightly under the boards.

Warren Co., Ill.

Liquefying Candied Honey in the Combs.

BY I. W. BECKWITH.

Correspondents frequently ask what to do with combs of candied honey; and Dr. Miller either tells them to melt them, or give them to the bees to clean, and save what little honey they can from the bottom-board.

Now I want to whisper in the Doctor's ear, and say to him to tell the next one to put those combs in a very damp, warm place, and in a few days the honey will all be liquified. Uncapping will very much hasten the process. Probably the best place is over a colony of bees in the cellar, with a honey-board between (that will let the heat and moisture pass, but exclude the bees), and made tight as possible above. The honey can then be extracted or fed to the bees without loss, and without danger of any granules being left in the sections to injure the next crop.

MANAGING VICIOUS BEES.

Reading the articles of L. S., page 486, and the one by Geo. S. Vinal, on page 595 (1896) reminds me of some experiments I had many years ago.

I had two colonies, one pure Italian and the other "high grade," that were as wicked as those that these gentlemen tell about. It seemed that the more foreign blood, the longer and more active their "tongues" at either end. They were certainly the best workers I had. (See articles referred to above.) The fowls and all other animals learned to avoid that part of the orchard, and I am not sure but they kept the thieving birds out of the cherry-trees. If one should pass the hives when they were all inside (if it was not too cold or dark), they would be attracted either by the sound or jar of the footsteps, or by the smell, and come swarming out. The more I smoked, the worse they were. I even smoked them till they could not fly, and as soon as they recovered sufficiently they would hoist the black flag.

At last I took the smoker, well filled, and approaching the hives at night as cautiously as possible, I would *fill* the hives with smoke, being careful not to let the smoker touch the hive, nor jar it in any way. After doing this a few times, as soon as they got the least smell of smoke they would run up the white flag—that is, they would hum their subjection, and soon became as docile as any bees I had; and the next spring they had not forgotten the lesson in the fall.

Weld Co., Colo.

Yellow Sweet Clover—A Few Facts.

BY JOHN M'ARTHUR.

In thus writing of the yellow variety of sweet clover (melilotus officinalis), my experience dates back 17 years, so that all bee-keepers are not ignorant of it or its habits. From the glowing accounts of it in northern Nebraska, one would be led to believe that bee-keeping would be revolutionized by a liberal application of the seed of melilotus officinalis. Remember, I am not writing from northern Nebraska, but from Ontario, Canada, which means considerable in latitude, and therefore may mean considerable in the way of secretion of nectar.

An American bee-keeper, inquiring about seed, asks the question: "Is it any better than the white variety?" Now, Mr. Editor, I crave the liberty of your columns, in order to answer this correspondent, also to give my experience with the two varieties, and their habits.

I would say, emphatically, that the yellow is not equal to the white in many respects, because it blooms at a time when we have an abundance of white, Dutch and Alsike clovers, and very few bees will then be seen upon it. Its roots are shorter, and don't penetrate so deep into the subsoils to extract moisture. Its spikes of bloom are fewer, and not so long, and it sheds its bloom quicker; the shoots from the root or seed are not so abundant; while for hay it is not to be compared with the white—I should say about two to one in favor of the white. As to pasturage, both are eaten greedily—I see no difference, but I would expect the best results from the white, as it is the more vigorous grower.

There is one peculiarity about the yellow sweet clover that I have not seen noted by any one, and that is, the seed-pod—examine it, and you will find it contains from one to three seeds, differing entirely from the white in this respect, which carries only a single seed in each pod. Its stems are of a reddish nature, while the white are greenish. In very dry seasons it often refuses to bloom a second time, while the white never fails, and is the last flower to be seen in bloom that bees work upon.

Since becoming acquainted with the nature and habits of the yellow variety, I find it better to confine it to bottom lands, and northern exposures. The reason for selecting these locations is to retard its early blooming. It seems to thrive in moist places. I have quite a few acres growing in the marsh, which I expect to see covered with it, in extent about 1,000 acres. I can assure you it will not be my fault if this is not the case, if I live long enough.

Having on different occasions made reference to it, and admitting that it is finer in the straw, yet I have seen it on rich, moist soil six feet in height. As a contrast, I have a sample of the white that measures 12 feet. It is more shy, and not so sure as a cropper. You can throw the seed of the white anywhere, and be sure of a catch, if the seed is good, almost every time; but not so with the yellow. Yet there is something beautiful about its pretty, little, yellow blossoms, that endears it to the lovers of flowers, which are a shade larger than the white. When there is a good stand it looks handsome when in full bloom. After being cut, it covers the ground, and is of a crawling, or creeping, nature, never becoming very erect. It is not at all obnoxious, in fact I have repeatedly sown it along some of the boulevards and streets, and it meets with no objection. This is one feature that commends it to bee-keepers.

In thus writing I am candid, having no personal aim in view, and no seed for sale, all being spoken for. My last year's crop of seed of the white variety, amounted to nearly 3,000 pounds, a few hundred pounds going to the United States. So I take this way to thank my United States bee-keeping friends for the interest they are taking in this, the queen of honey-plants. Ontario, Canada.

Preventing Bees from Leaving a New Hive.

BY L. L. SKAGGS.

Just put an entrance-guard over the entrance and leave it there until they are satisfied with their new home. The bees may come out several times, but they will return, because the queen can't follow.

I have been practicing this for four years, and I find it beats giving a frame of brood, or any plan that I ever saw in print.

If you want comb honey, give the new swarm four frames of sealed honey and four frames of starters, and see how quick they will go to work in the sections, and the starters will be built out with worker-comb, as a rule.

COMB HONEY HIVE—DON'T FEED SUGAR.

Some one wanted to know if any one had tried a two-story 8-frame hive for comb honey. Yes, I have, and I think it is the best way with old colonies that get the sections further from the old black brood-combs, and the sections are as white as those that are built over new swarms; and you have 12 months' supply of honey in the brood-combs, and that is what I want. I don't want to feed. I think that is the worst business that a bee-keeper ever got into. Better keep plenty of sealed combs, and never think of feeding. But if you do get in that fix, whatever you do, never use anything but honey, for if you do it will be going all over the country that you feed your bees on cheap sugar to "make" honey, and people will tell all kinds of yarns about you. Take my advice, and never use anything but pure honey, or you will be sorry for it.

I think sugar-feeding has hurt bee-keepers nearly as much as adulteration. From what experience I have had in feeding, I would rather have two pounds of honey than three of sugar. It was what was intended for bees; they never get tired of working on honey, but sugar is different. They never rear much brood when fed on sugar.

FIGHTING COMMISSION AND AULTERATING FRAUDS.

Say, bee-keepers, if Mr. York gets a lawsuit on his hands by exposing frauds, why can't we chip in a little to pay his expenses? A little from each subscriber would amount to considerable, and we would never miss it. It seems like a big load for one to take on his hands. He is saving bee-keepers lots of money, by exposing these swindlers, and I think we should stand by him, if he gets into trouble for our benefit.

Say, Mr. York, why not you and some more editors, and able bee-keepers, frame a Bill or a pure food law, and send out a copy to each bee-keeper to sign, and get all the signers possible, then return to you, and you present it to Congress? Don't you think the Bill would pass? I believe nearly every man would sign such a Bill. If the lawmakers want to help the people, I think they would push such a Bill through at once. I am willing to do all I can within the bounds of reason, to stop adulteration, or any other kind of fraud.

Llano Co., Tex.

[Thank you, Mr. Skaggs, for suggesting that all turn in and help in case we get into trouble for exposing frauds in the interest of bee-keepers. We are not afraid at all, but in case any swindler should think of fighting back, it would be a fine thing to tell him he'll have to fight the whole bee-keeping public. He probably would "tink a coople dimes" before he began to strike back. But they know better than to attempt that.

Yes, it might be well to take up your suggestion about getting a law against adulteration. But the plan was tried once, and failed. Later on perhaps some such plan may be undertaken again.—EDITOR.]

Several Notes on Bees in Nebraska.

BY J. M. YOUNG.

Bees are wintering finely in this locality, the temperature of the weather being so that they could fly every few weeks through the entire winter, but spring dwindling usually gets away with more bees than the winter here.

WHERE TO KEEP HONEY.—The proper place to keep extracted and comb honey is in a warm, dry room upstairs in your dwelling or honey-house, where you have fire below the most of the time. As soon as our honey is taken from the hives it is placed in the upper part of our dwelling, where the direct rays of the sun strike it at all times.

STAMPING SECTIONS.—I never use labels on my honey-boxes, and yet my name and address appears on every section I put on the market. I have a rubber stamp with my name and address, that beats any label ever printed, and is just as attractive. It is easily put on, does not cost very much, and several sections can be stampt in a minute, or several hundred in an hour. Just try one, and convince yourself.

DATING CIRCULARS.—Quite a few circulars come to my address without any date on them. It seems to me that all printed matter of whatever nature should have something on it to show just when it was "borned." Also, if bee-keepers would use colored paper for the covers of their circulars it would be a big item in many ways.

AN UP-TO-DATE BEE-KEEPER is getting ready now for next summer, just as fast as he can. If he hasn't been posting up on bee-literature all winter, and looking up the best and newest improvements he will surely be "left" when the time comes for real work. The winter-time is the proper time to do all this—to fix hives, cases, boxes, etc.

CANDIED HONEY IN SECTIONS.—I don't agree with Dr. Miller (see pages 74 and 103) as to using old sections that had candied honey in them. I usually have sections every winter (and believe all bee-keepers have) that the honey will candy, and the unsealed honey will sour in the sections. My hives are all 2-story, and when the weather gets warm I place these candied sections of honey—in fact, all sections that have honey in them—in the upper story of the hives, directly over the bees, and leave them there for several days, and if the Doctor will do this I think he will not find any granulation of honey in them, and that they will be just as clean as anybody would want them. If the sections are put in the open air, I doubt if they are cleaned out properly.

DRAWN-COMB AND END-SPACERS.—I am watching those fellows down at Rootville, on that drawn-out comb business; also that new improvement on frames with staples driven in the ends, and I hope they may succeed. The idea of using drawn-out combs is a good one, and will be a big advantage to bee-keepers, but the cutting off the ends of the frames—well, I shall wait and see what the outcome will be, before adopting the plan. From what I can gather from the idea, I don't believe it is just what Mr. Root thinks it is. Perhaps I may try a few frames in my own apiary this season, merely to test the idea.

Tall Sections.—The idea of introducing tall sections is undoubtedly a good one, from the fact that they look much handsomer and neater when filled than a 4¼x4¼ section. The bees will fill them quicker than a square section. Years ago I used what is called the "2-pound prize section," 2 inches wide, with a 12-inch case. It did not take the bees any longer, apparently, to fill a case of 2-pound sections than a case of 12 or 24 one-pound sections; but as soon as the square sections came into use, I laid them aside just because I only wanted one size section to handle in my apiary. I still have some of these same 2-pound sections lying around my shop; and to try them again, I think I will fix up a few cases of them next summer, just to see how an old idea will work along side the improvements of to-day. Now, if we can get just one pound in the tall sections, or near it, they will be all right. Everybody has become so used to buying honey in one-pound cakes that if we introduce anything that will hold more than a pound they will kick. A section 4x5x1½ or by 1⅝, may make just one pound, or be the right size. If these sections go over a pound the bee-keeper will be the loser, and the consumer the gainer. But, then, the greatest drawback to tall sections is that of having to change all our cases, and what to do with the ones we already have.

Cass Co., Nebr., Feb. 24.

CONVENTION PROCEEDINGS

The Eastern Iowa Bee-Keepers' Convention.

BY W. A. HAY.

The Eastern Iowa Bee-Keepers' Association met at Anamosa, Feb. 10 and 11, 1897, and was called to order by Pres. F. M. Merritt. Secretary Keeler being absent, W. A. Hay was appointed Secretary *pro tem.* The Secretary's and Treasurer's reports were read and approved.

On motion of T. O. Hines, the President was given the power to appoint an experimental staff.

QUESTIONS AND ANSWERS.

Ques. "Shall we requeen in the fall or spring?" Ans.—It is the expression of this convention that we should requeen about the time of fruit-bloom, or as early as the weather will permit.

Ques.—"Is it profitable to rear more than one race of bees? If so, what kinds?" Ans.—We believe that it is profitable to infuse new blood into our stock; and until we get a better bee by trial, we will hold to the Italians.

Ques.—"What is the best method of keeping extracting-combs over from one year to another?" T. O. Hines replied: "When I extract the honey from the combs, I would let the bees clean them up. I would replace them in the supers, two combs less than when there was honey in them, and divide that space equally so that the combs will hang apart as much possible; and stack the supers away in the bee-house, or hang them away with nails driven in the rafters in the bee-house, where they will keep equally as well. I also think it impossible to keep combs with pollen in, without sulphuring them." Mr. Coverdale objected, and said that they are profitable for him to keep for breeding purposes.

Ques.—"What should be the condition of a colony in feeding back, to give the best results on unfinisht sections?" Mr. Coverdale said the condition of the colony must be good, and the bees put in condition that they will be forced to carry honey fed to them into the sections. And it is the opinion of this convention that it is not profitable to feed back.

Ques.—"Is it best to increase by natural swarming or nuclei to secure the best results?" Mr. Hines desires increase for the best results by natural swarming. Mr. Coverdale said: "If I want both increase and honey, by nuclei." D. Benton prefers natural swarming. Pres. Merritt, for the best results, would increase after the honey season.

Ques.—"Is it best to spread the brood?" Ans.—It is, if you know how and when, and if it is done with great caution.

Ques.—"Does it pay to use full sheets of foundation in brood-frames?" Ans.—All things considered, the convention thought not.

The following paper was read by Mr. Frank Coverdale, entitled,

ALSIKE CLOVER AS A FODDER FOR STOCK AND AS A HONEY-PLANT.

In writing this paper I will endeavor to give plain facts from my own farm. I harvested my first crop of Alsike in 1892, cut it for seed as soon as ripe enough, and it yielded, from 8 acres, 32 bushels of nice, clean seed (which I sold for $10 per bushel), and as nearly as I could tell, about one ton per acre of very good cattle hay, which was 8 tons, worth $5 per ton, or $40, to which add $320, and we have $360. Take off $32 for hulling, and we have a net income of $328, which is $41 per acre—a better income than I ever obtained from any other crop on the farm.

Alsike will yield at least 3 bushels of seed per acre, and I have obtained (the 4 years that I have grown it) an average of $6.75 per bushel for the seed; 75 cents off for hulling, leaves $6 clear. The value of one ton of good hay per acre is $5, making a net income of $23 per acre, saying nothing about labor of harvesting and threshing.

Let us compare results with the corn-grower, or, in fact, any other crop. The average price of corn is about 32 cents per bushel, and about 35 bushels per acre is nearly the average—40 bushels most; sold at 32 cents will net $12.80 per acre. Count the stalks at $1 per acre as feed, leaves $13.80 net, saying nothing about the very much increast labor of caring for and harvesting. Corn or oats runs the land down, while Alsike builds it up.

In considering the above, we might well add $5 more to the real worth of the ground for another crop after it has grown Alsike. If we should put it at $13.80, net income for one acre of corn, and $28 net for one acre of Alsike, we would have, in my opinion, a very correct statement, which will leave most decidedly $14.20 as the net value of Alsike over the average corn crop.

Alsike hay cannot be beaten as a cattle food. They thrive well whenever they get it. The hay is nice and green, even after being hulled. Here is where Alsike gets the start of red clover; the latter turns mostly black before the seed ripens. Seed and hay can't be had at the same cutting.

Labor has gotten to be a big item on the farm. It takes but little labor to handle a crop of Alsike for hay and seed. It is done all at once, and at a time when it seldom rains—just before oat harvest. This nice, well-cured, green clover can easily be gotten up.

Alsike prefers low ground, but will do very well on hills, if the ground is in a good state of cultivation. It is inclined to grow too short on high, worn-out land. It does well where the soil is loose. It should not be sown on clay hills, unless manured. It will grow 4 or 5 feet high in a wet slough, right among slough grass, and will run out the grass. Alsike is a short perennial. I have a field 4 years old, and it is now thicker than ever. It is grown north of us because of its ability to stand the long, hard winters.

It is needless for me to say that this variety ranks well as a nectar-yielder. I would place our honey-yielding flora in the following order: Gray willow, heart's-ease, sweet clover, Alsike, white clover, buckwheat, red clover, Spanish-needle, wild sunflower, and a blue flower that grows along bottom lands.

I might say much more, but this paper is already long enough. However, I will add that Alsike, like white clover, refuses to a great degree to yield honey during a very dry season. In 1894 I secured 2,000 pounds of comb honey, nearly all, I think, from Alsike. There was over 100 acres close to my bees, and they workt scarcely any on white clover. One bee-keeper, who had about the same number of colonies as I, and in about the same condition, secured scarcely any surplus at all. He was not within reach of the Alsike fields.

Again, the honey from the above source was hardly as light in color as that from white clover, but lackt nothing in flavor.

Frank Coverdale.

PRESIDENT MERRITT'S ADDRESS.

It gives me pleasure to meet you again. These gatherings are for the purpose of exchanging views and thoughts, and the pleasures that arise from a personal acquaintance with those engaged in the same pursuit as ourselves.

Our present literature has advanced from a crude state to almost a perfect ideal. The older bee-keepers can remember in their early experience, if they would hear of an article in a paper on bees, they would travel for miles to read it. And then our hives and fixtures seem to have reacht perfection, and the mode of operating the same has become so general among bee-keepers that there seems to be nothing farther to be desired. But in this we are in error, for on opening any of the bee-journals one will find some new improvement on hives and fixtures, or a new system of management to secure certain results, and as certain conditions bring certain results, so are some results often discovered more by accident than by deliberate planning of the apiarist.

In advising with several of the members last spring, it was thought best to secure the services of three or four of the more experienced members to experiment on such lines as they may select. This was done to add new interest to the next convention, as much as to the benefits derived from the experiments. What benefits, if any, will be shown by the reports of the staff. As no members of the staff have reported to me their success or failure, I fear the work was interfered with by there being a very small honey harvest, and in some parts none at all the forepart of the season. But with discouraging reports, I would urge the appointment of a staff to continue the unfinisht work, and select other lines for the coming season.

I would especially urge each member of the association to give special attention to some line of work in the apiary, that they are not satisfied with, and continue on that line until all doubts are dispelled. It would add new interest at the conventions.

The adulteration of honey should be considered by this convention. I would suggest that the Secretary be instructed to correspond with the secretaries of all associations in the State, asking them to circulate petitions among their members to be signed and presented to their various members of the next legislature, looking toward the enactment of a stringent law. We could then drive the foul curse of adulteration of foods from our State.

The season of 1896 was one long to be remembered by the bee-keepers of eastern Iowa. The fearful winter losses, and absence of an early honey harvest, combined to discourage some of our apiarists. But there was much to be learned, even in a year of failure. In my apiary it was forseen in the spring that feeding would have to be done to all the colonies, and it was continued until basswood came into bloom. This and other causes I will not mention in this paper, greatly interfered with a line of experimental work I had laid out in my own apiary.

In conclusion, let me say that I feel grateful to the members of the experimental staff for the way they were willing to take hold of the work, and the assistance they gave me on other lines. F. M. Merritt.

The experimental staff was continued over to the coming season. Owing to the failure of the honey crop they were unable to accomplish anything last season.

The election of officers for the ensuing year resulted as follows: President, F. M. Merritt; Vice-President, T. O. Hines; Secretary and Treasurer, W. A. Hay, of Anamosa.

The place selected for holding the next meeting was Maquoketa. W. A. Hay, *Sec.*

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

◆

The Alsike Clover Leaflet consists of 2 pages, with illustrations, showing the value of Alsike clover, and telling how to grow it. This Leaflet is just the thing to hand to every farmer in your neighborhood. Send to the Bee Journal office for a quantity of them, and see that they are distributed where they will do the most good. Prices, postpald, are as follows: 50 for 20 cents; 100 for 35 cents; or 200 for 60 cents.

◆

Now is the Time to work for new subscribers. Why not take advantage of the offer made on page 170?

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Carniolan Bees and Advertisements.

I would like to try the Carniolan bees, but I do not find any advertisement of any queens of that kind for sale. Could you tell me, through the Bee Journal, of any one who has Carniolans for sale? A. S. R.

Answer.—It's rather early to think of getting queens, so it's rather early to find advertisements of them. In plenty of time for you to order you'll find queens advertised, and if you don't find advertisements of any particular kind you're pretty safe in concluding that practical honey-producers don't care much for that kind. [Carniolans are offered in this number. —Editor.]

◆

Flour and Comb-Building.

Our bees had several good flights here last week. I gave them ground rye and wheat flour, and it was a pleasure for me to see them so busy carrying it in. Do the bees build comb from wheat or rye flour? F. W. H., East Alton, Ill.

Answer.—Probably flour of any kind cuts very little figure in the matter of comb-building. Feed sweets, and comb will be built if it's needed.

◆

The Dzierzon Hive.

There is an old German who lives across the road from me, and has been telling me of a hive they used in Germany, but he can't give a discription of it so that I can make one. The name of it is "Dzierzon." He says it is an automatic hive. If you can give a discription of it in the American Bee Journal, I should be much obliged, not only for me, but the old gentlemen who is past 85 years. H. W. S.

Answer.—Dr. Dzierzon is the one who to-day stands highest of all men living as a leader in bee-culture. No living man has done so much for bee-culture. An English translation of his book, "Rational Bee-Keeping," lies before me, but I feel very sure it isn't worth while for you to have a description of one of his hives. You wouldn't be satisfied to use it. For one thing, you wouldn't be satisfied to have a hive from which you couldn't lift out the frames at the top after taking off the cover. With the Dzierzon hive you open the side or end, draw out one frame, then another, and you cannot get the last frame out of the hive without first taking out every other. As to being an automatic hiver, it is no more so than hives commonly in use here. It is some time since I read his book through, but I don't remember seeing anything about automatic hiving, and certainly full instructions are given as to the managements of swarms that issue.

◆

Queenlessness—Putting on Supers, Etc.

1. As I bought three colonies of bees and have not much experience, I would like to know how to tell when a colony is queenless in the spring after taken out of the cellar?

2. Must the super be put on the hive as soon as I take them out of the cellar?

3. Can I let the bees work in the supers all the season if I do not intend to feed them for winter?

M. S., Dubuque Co., Iowa.

Answers.—1. One way is to look for the queen. But sometimes you may fail to find the queen, altho a good one is present. A better way is to look for eggs and brood. If you find eggs, or little white grubbs, in the cells you may know a queen is there. In rare cases the queen may not be laying when taken from the cellar, but will surely begin in a day or two, unless the colony is taken out too early. Don't take them out till soft maples are in bloom, and not then unless the weather is favorable for bees flying.

2. No, don't put on supers till the full flow of honey has started. If white clover is your staple, don't put on supers till it is in bloom.

3. That depends. If you use 8-frame hives, and the frames are kept filled with brood till late, they may be short of winter stores. With 10-frame hives you are safer. Of course you musn't leave a super on after the sections are finisht.

Honey Griping in Medicine.

Will honey gripe some people, if it be made into medicine and taken? J. E.

Answer.—I should hardly think so.

Taxing Bees in Wisconsin.

Are bees taxt, or taxable, in Wisconsin? Why I ask is, that I have been assest at the rate of $3 a colony, and there are some 800 or 1,000 colonies of bees within 3 or 4 miles of my two yards, that were not taxt. Our assessor has over 100 colonies. I do not find a person yet in this (Clark) county, except myself, whose bees were taxt. I don't intend to do anything about it, but I would like to know if they had a right to tax my bees, and, if so, why the rest were not taxt? H. C.

Answer.—Each State has its own laws about taxing, and I don't know what the Wisconsin law is. Any lawyer or justice of the peace ought to be able to show you the law. No matter what it is, there seems no shadow of justice in taxing one man's bees and not those of another. There seems to be more irregularity about taxing bees than almost anything else. In some places they are not taxt at all. But is there any good reason why they shouldn't be taxt everywhere? If a man steals or destroys my bees I appeal to the courts for protection, and I ought to pay for that protection in the way of taxes.

Shipping Honey in Jelly-Tumblers—Honey Cough Cures.

1. I want to ship extracted honey in jelly-tumblers. How shall I pack them for shipping?

2. How can I make a cough and cold medicine out of honey? I mean by adding other ingredients. Would such be good for croup also? Minnesota.

Answers.—1. Pack in boxes in sawdust. But unless the honey is candied solid it will be likely to leak out under any covering you may put on.

2. Yes, for an ordinary cough honey alone is a very good thing, and it may be compounded with almost any of the other articles good for a cough. Probably you can't count much on it for croup unless you give enough to sicken the patient, and that would hardly be wise. Among other medicines for coughs is the following:

Honey-and-Tar Cough-Cure.—Put into boiling water a shallow tin dish containing a tablespoonful of tar. When the tar is hot, add a pint of extracted honey, and stir well for half an hour, adding to it a level teaspoonful of pulverized borax. Keep in a bottle well corkt. Dose, a teaspoonful every one, two or three hours, according to severity of cough. This recipe was given in a former number of the Bee Journal by Dr. Peiro.

Here's another that's good: Steep half a cup of flaxseed in a cup of hot water. Strain out the liquid and mix with a cup of honey in which is put the juice of two lemons.

Moving Bees to Washington, etc.

Having a 10-acre orchard in the State of Washington, and a desire to introduce some bees in it, I subscribed for the American Bee Journal as one of the necessary ways to start right. Having never kept bees, it is unnecessary for me to tell of my limited knowledge of them. I also found the Bee Journal a little too heavy for a beginner. Can you spare space to give a little advice and answer a few questions. The questions are these: Can bees stand a journey from this locality to Spokane, by freight? About two weeks' time is necessary. Had I better send full colonies, or nuclei?—48 hours by express. Any general information you deem proper will be appreciated. Do not bee-keepers ever sell bees? I cannot find an advertisement to that effect. E. J. M.

Answer.—A good text-book on bees would be interesting reading for you, and after a careful reading of such a book a bee-journal would be more enjoyable, and not so "heavy." Rightly prepared, a colony of bees ought to stand a two weeks' trip by freight, but there are some risks. Perhaps it would be as well to have a three-frame nucleus by express. Still better, if you could buy near by where you are going.

Yes, bee-keepers sell bees very often, and a little later on you'll see plenty of advertisements, but possibly none to suit your case. Possibly the best thing is for you to put in a "want ad.," and you'd likely get offers from which you could select.

A man that is bright enough to understand that bees and fruit go together ought not to make a failure with either. Success to you.

Golden's Plan for Comb Honey.

1. In following Mr. Golden's plan, after the queen has been in the supers five days, then put back into the hive, will the queen-cells be destroyed? What time will it take them to do it?

2. What effect will it have on the bees in the supers being queenless? I. C. S.

Answers.—1. Your question evidently has in view releasing the queen without cutting out the queen-cells. In some cases I should expect the queen-cells to be torn down about as soon as the queen was releast, but in the majority of cases I should expect the old queen to issue with a swarm inside of 24 hours. On page 834 (1896) Mr. Golden omits to say that queen-cells are cut out when the queen is run in, but I have little doubt that he always cuts out all queen-cells before letting the queen out of her prison, and on page 834, where he gives particulars, he expressly mentions that "Every queen-cell was cut out." At the point where this statement is made, there is evidently an error that somewhat confuses the whole business. On page 834, a little below the middle of the first column, occurs this line: "hive the fifth day. Every queen-cell," etc. Now change the place of that period, and make it read: "hive. The fifth day every queen-cell," etc., and you'll have what was really intended.

2. You will see by the account on page 834, that the effect was all right, as he got a good yield of honey, but then the bees were never really queenless in the full sense of the term, for the caged queen was present all the time.

The California Bee-Keepers' Exchange

is now officered by the following representative bee-keepers:

President—W. T. Richardson; Vice-President—George W. Brodbeck; Treasurer—Los Angeles National Bank; Secretary—J. H. Martin, Box 152, Los Angeles.

Board of Directors—G. S. Stubblefield, C. H. Clayton, R. B. Herron, E. A. Honey, J. la Rue, R. Touchton, J. C. McCubbin, W. T. Richardson, and F. S. Pond.

Directors-at-Large—J. H. Martin and Geo. W. Brodbeck.

Their last meeting was fairly well attended, and the interest manifested was surprising after so disastrous a season as 1896 proved to be. But all are looking forward to a more prosperous year now. Prof. Cook, in the Cultivator and Poultry Keeper, wrote as follows about the Exchange and prospects:

"The outlook for a successful honey-year and for wise action on the part of the Exchange, fills all members with great hope. It is confidently believed that the Bee-Keepers' Exchange is a tremendous step in advance. The officers are so wide awake, capable, conscientious and determined, there can seem little danger of a failure. The honey-producers also have the advantage of the Fruit Exchange, and they hope to steer clear of its necessary mistakes. It is believed that the advantages in improved sales, and also in more desirable purchases of supplies, will so commend themselves to bee-keepers that very soon we shall have all the bee-keepers of our State as members of this Association."

Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offer on page 170.

The American Bee Journal
OLDEST BEE-PAPER IN AMERICA

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Editorial Comments.

California Against Honey-Adulteration.—March 12 we received a letter from Mr. C. H. Clayton, of Los Angeles Co., Cal., informing us that his proposed anti-adulteration of honey Bill, as publisht on page 72, is now the law, having past both branches of the Legislature, and signed by the Governor. The Bill was past without amendment, which shows how carefully and satisfactorily it must have been prepared by Mr. Clayton. We congratulate both Mr. Clayton and the bee-keepers of the great State of California upon their success. Now, we trust they will see to it that it is thoroughly enforced.

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Triangular Tin End-Spacers for brood-frames are used by Mrs. Julia McGuire, of Shelby Co., Iowa. She has kindly sent us a sample of them. It is a right-angled triangular piece of heavy tin whose two equal sides are about ½ inch in length. The square corner is to be flattened so that it will stay in the wood better, then drive it in with a small hammer right under the center of the top-bar, and as much into the end-bars of the frame. The diagonal edge of the tin will cause the frame to slip down to place at the side of the hive-rabbet, and be properly end-spaced.

Mrs. McGuire thinks her end-spacer is better than the staple arrangement recently suggested. It can easily be tried, as such tin points can be had at any tinshop.

◆

Making Experiments in any line is often expensive. And often many experienced bee-keepers allow their enthusiasm to run away with their better judgment, thus getting them into useless outlay and trouble.

Now we are not attempting to discourage a certain amount of experimenting by every bee-keeper, but we do wish to enter a word of caution to those who think that every time a new hive or frame is brought forward they must throw away all their old fixtures and lay in a big stock of the new.

We think the better way would be to experiment a little each year. If a new hive is put on the market, just get a *few* of them to try until fully satisfied they are an improvement upon the kind you have been using right along. The same suggestion will apply equally well to other apiarian novelties and improvements. Better leave the extensive experimenting to the larger bee-keepers who possibly can better afford to lose, in case there is much chance for loss.

Of course, the supply manufacturers get up things to sell—that's their business, and it is often all right; but all manufacturers are not as conscientious and conservative as they should be, and may attempt to push the sale of things that have not been thoroughly proven valuable. So we say, experiment on a small scale, not more than you can do without endangering your success for the year. But by all means do some experimenting. Don't be entirely satisfied with the favorable reports of others. Of course, most of the unfavorable reports, when given by bee-keepers of experience, can be relied upon, and there's no necessity of the inexperienced going over the same ground.

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A Good Bee-Book should be in the hands of every one who would keep bees. It will avoid the asking of hundreds of simple questions. A carpenter could hardly make a success of his work without proper tools. Neither can the bee-keeper. And a first-class book on bees is one of the best "tools" a new bee-beeper can possibly have. There are three "best" books on the subject publisht in this country. They are: "Langstroth on the Honey-Bee," revised by Dadant; Prof. Cook's "Bee-Keepers' Guide;" and Root's "A B C of Bee-Culture." Each is mailed for $1.25; or we can send either Langstroth's or Root's with the American Bee Journal for one year—both for $2.00; or Prof. Cook's book and the Bee Journal for $1.75. Which will you have?

◆

Nebraska Bee and Honey House.—On the first page this week we give an illustration of the beautiful Bee and Honey house belonging to the Nebraska bee-keepers, and located on their State Fair Grounds near Omaha. Mr. E. Kretchmer, who is intimately associated with Nebraska's apiarian history and advancement, contributed the following description to Gleanings for Dec. 1, 1896:

> The illustration gives some idea of the push and energy of our Nebraska brethren for apicultural industry, erected on the State Fair Grounds near Omaha, during the year 1895. It, no doubt, is the most complete structure devoted *exclusively* to the exhibition of bee-supplies, bees, and their product. The building is a substantial frame structure, measuring, as you view the illustration, 64 feet from left to right, and 50 feet wide at each end, while the central portion projects over 6 feet further to the front, and the two doors are covered with a so-called "lobby," surmounted with tower-shaped framework, ornamented with balustrades and flag-staffs, while immediately over the entrance, resting on a neatly modeled lintel, may be seen an imitation of the old-fashioned German straw hive. The iron-covered roof has a dome-shaped center, supplied with swinging windows, admitting central light and ample ventilation; and over this rises a neat flag-staff, somewhat longer than the others, from which floats "Old Glory."
>
> The inside is floored with yellow pine; the side windows are large, and so arranged as to show the exhibits to the best advantage—the glass being stained or coated white to check the effect of the direct rays of the sun. Around the sides are placed long tables or shelves on which to place the exhibits, with closet room underneath to safely keep cases, crates, boxes, etc.; a railing, placed at a suitable distance from said tables, prevents visitors from crowding each other against the exhibits; some of the honey and wax exhibits during the last Fair were nearly 10 feet high, and crowding against it might have caused considerable damage.
>
> Seats are placed in various parts of the building, where the weary visitor may find rest, or refresh himself at the fountain of pure water just outside of the door.
>
> In the center of the room stands a large glass case for the exhibit of honey and waxwork. This case is of the same size and shape as those used at the Columbian Exposition, in Chicago, in 1893, for the exhibit of honey and wax. This case, while it permits the exhibit of honey and wax in any manner, shape or form, protects it against dust and damage resulting from handling by visitors. Next to this case a space is set apart for the purpose of practical demonstration of the manner of extracting honey; here our city friends are informed by lectures and ocular demonstration that extracted honey is Nature's own pure sweet—clean, bright, and pure.
>
> The central portion of the front side of the building, just under the words "Bee and Honey," is set apart as the superintendent's office, separately enclosed, and furnisht with table, chairs, etc., and here the exhibitor may at any time, prior to

the opening day, make his entries and receive his entry-cards, correctly entered by a practical bee-keeper familiar with apicultural phrases, avoiding the necessity of going to a remote part of the grounds, and then stand in line before the entry clerk in the secretary's office, awaiting your turn to make your entries.

While we admire this magnificent building wherein to exhibit the "little busy bees" and the result of their labor, we cannot refrain from mentioning that this building is due to a great extent to the untiring energy of Hon. E. Whitcomb, for over 10 years the President of the Nebraska Bee-Keepers' Association, and to his able assistant, Mr. L. D. Stilson, editor of the Nebraska Bee-Keeper, and Secretary of the Nebraska Bee-Keepers' Association.

Mr. Whitcomb has been the Superintendent of the bee and honey department of the Nebraska State Fair for 12 years; and the writer well remembers the remark he made when, with his own hands, he set some posts in the ground and nailed on some boards, for the *first* separate shelter for the bee and honey exhibit. He said: "We will have something better." His extensive acquaintance with nearly all the State officers, as well as the officers of the Fair association; his zeal for bee-culture in Nebraska, his indomitable determination, bordering on obstinate tenacity that would not take "no" for an answer, has been the foundation, cornerstone, and superstructure of this building, to which every Nebraska bee-keeper—yes, every lover of the busy bee—may point with pride. E. KRETCHMER.

Honey Candy and Cookies.—Mrs. A. J. Barber, of Colorado, has very kindly sent us the following recipes for using honey in making candy and cookies:

HONEY-CANDY.—One quart honey, one small teacup of granulated sugar, butter size of an egg, two tablespoons strong vinegar. Boil until it will harden when dropt into cold water, then stir in one small teaspoon of baking soda. Pour into buttered plates to cool. Without the vinegar and soda it can be pulled or workt a long time, and is just the thing for an old-fashioned candy pull, as it is not sticky, and yet is soft enough to pull nicely.

HONEY-COOKIES.—One large teacup full of honey. One egg broken into the cup the honey was measured in, then two large spoonfuls sour milk, and fill the cup with butter or good beef dripping. Put in one teaspoonful of soda and flour to make a soft dough. Bake in a moderate oven a light brown.

We wish to thank Mrs. Barber for these two recipes, and also invite others to send in any more that are valuable, and that have not been recently publisht.

The Weekly Budget.

MR. G. A. FORGERSON, of Dakota Co., Minn., wrote us March 5, when sending his renewal subscription:

"I am very much pleased with the stand the American Bee Journal has taken against fraudulent commission-men and honey adulterators. It seems to me that if bee-keepers would unite, and stand together, great good could be done along this line."

MR. G. M. Doolittle, of Onondaga Co., N. Y., wrote us as follows March 9:

"The snow all gone but the deeper drifts, and spring seems to be coming on apace. This is early for us, but none too early for the bees, which have had no chance to fly in 1897. Those in the cellar care not, of course, but those wintered on the summer stands begin to want a flight quite badly. I hope that the American Bee Journal will meet with the success it deserves."

DR. C. C. MILLER, of McHenry Co., Ill., wrote us as follows Wednesday morning, March 10:

"A magnificent morning. Last night I went down cellar and 'harkt' at the entrance of every hive, and found only three colonies dead; and the book shows those three queenless."

The Doctor had 270 colonies last fall, having increast during the season from 140, besides taking that nice crop of 10,000 pounds of comb honey. No wonder he's been so happy all winter!

MR. LUTHER HENRY TUCKER, senior editor and proprietor since 1873 of the Country Gentleman, of Albany, N. Y., died Feb. 24, 1897. He was 62 years of age. He was a tireless toiler in his chosen pursuit, and progressive agriculture has lost one of its strongest supporters. The Country Gentleman is one of our best exchanges. Mr. W. Z. Hutchinson frequently contributes to its columns articles on practical bee-culture, showing that its editor used better judgment in the selection of his apiarian contributors than most agricultural publications do. The Bee Journal extends sincerest sympathy to the bereaved family and friends of the honored Luther Henry Tucker.

MR. J. A. GOLDEN, of Morgan Co., Ohio, wrote March 8: "Bees are breeding up quite a little for this climate so early."

HON. GEO. E. HILTON, of Michigan, writing March 8, said:

"Long may the American Bee Journal live, and receive a full share of the prosperity that will surely come under the *present* administration, in which 'American markets for Americans' will be the watchword."

REV. H. ROHRS, a Lutheran minister of Rock Co., Wis., gave us a very pleasant call last week. He has some 30 colonies of bees which he cares for in connection with his pastoral work. Last year he had about 800 pounds of comb honey. He has been experimenting a little in wintering bees the past few months, and we have invited him to write the results a little later on.

DR. PEIRO'S department, which appears quite frequently in the Bee Journal, is always worth reading. You will find it on page 175 of this issue. By the way, if there is anything wrong with your throat or lungs, it will pay you to consult him. He makes a specialty of these things. He is also a good family doctor—an M. D. of over 30 years' standing—though he prefers to sit most of the time, as he's pretty weighty!

MR. J. C. THOMPSON, of Logan Co., Ky., sends a description of a new swarm-catcher he has invented. It is a little after the plan of the Hill swarm-catcher. A box is made by means of a frame of wood covered with wire-cloth, fixt on the end of a pole of sufficient length. One side of the box is covered by a door which slides in grooves at each side, and a string running through a pulley allows the operator to close this door when the bees have entered. Then the box filled with the swarm is laid over the frames of the empty hive, the sliding door is opened, and the bees allowed to go down.

MR. C. A. HATCH, once one of the most prominent bee-keepers in Wisconsin, is now in California. In an exchange, Prof. Cook has this to say about him in connection with the late meeting of the California State Bee-Keepers' Association:

"The presence of Mr. Hatch, late of Wisconsin, was very gratifying. Mr. Hatch is not only a bee-keeper of prominence in our country, but also a man of far more than ordinary intelligence. He was not only one of the most successful honey-producers of Wisconsin, but was also quite noted as a general farmer, especially in the production of sheep and mutton. So successful was Mr. Hatch in his work that, for several years, he was appointed as one of the lecture staff of the Farmers' Institutes of that State. California is greatly to be congratulated in having such a man with us."

MR. A. S. ATKINS, of Washington Co., Vt., had this to say March 2, when renewing his subscription:

DEAR MR. YORK:—"I don't see how any one that keeps bees can get along and never look inside of a good bee-paper. I think the "Old Reliable" grows better ever week. The times are very hard, but they will be much worse before I shall try to get along (and keep bees) without your valuable paper."

MR. M. A. GILL, of Mesa Co., Colo., is the bee-inspector for that county. He says this in Gleanings:

"This county (Mesa) has about 4,000 colonies of bees. I personally examined 3,100 colonies last season. I destroyed by fire between 50 and 60, besides burning over 100 infected hives and other fixtures. I also drove quite a number of colonies back into their own hives after first saturating the inside of the hive with coal-oil, then burning it to a char, and giving them only V-shaped top-bars for starters. That the honey they carry with them is digested before they can build comb and store it is proven, I think, by the fact that of all the colonies so treated only two showed signs of the return of the disease last fall."

☞ This is a good time to work for new subscribers.

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Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Effect of Cellar Wintering on the Bees vs. Outdoors.

Query 46.—Are bees taken out of the cellar in the spring any more tender than those that have been out all winter?—Wis.

J. A. Green—I think so.

G. M. Doolittle—I think not.

Jas. A. Stone—I don't think they are.

A. F. Brown—I have no experience in this.

Eugene Secor—No, if properly wintered.

Mrs. L. Harrison—I do not think that they are.

E. France—I don't know, as we winter all outdoors.

Dr. C. C. Miller—I'm afraid they are—sometimes, at least.

W. G. Larrabee—I have had no experience in cellar-wintering.

J. M. Hambaugh—Some say they are, though I never thought so.

C. H. Dibbern—I don't know for sure, but it has always seemed so to me.

Prof. A. J. Cook—Not if wintered well. They may be in far better condition.

Chas. Dadant & Son—They seem to us to be, until they have had two or three good, cleansing flights.

Dr. J. P. H. Brown—I cannot answer from personal experience, as in my climate (Georgia) we winter out-of-doors.

H. D. Cutting—I think not. Many old bees die after placing out that would have died during the winter if left out-of-doors.

P. H. Elwood—The bees that winter the best are the toughest, whether wintered indoors or out. It is the poorly wintered bees that are tender, and dwindle.

R. L. Taylor—Are cows wintered in a comfortable stable any more tender in the spring than those that have past the winter with the protection of a rail fence only?

Emerson T. Abbott—No. Would a man who had been out of the house only once or twice during the winter be as strong in the spring as one who workt every day in the open air?

G. W. Demaree—Not if the weather is warm enough so that the bees are not subjected to sudden changes of temperature. But, really, I have but an experimental knowledge of cellar-wintering.

Rev. M. Mahin—I have no experience in cellar-wintering, and in this climate (Indiana) I do not think it advisable. From what I have heard and read I am quite sure that cellar-wintered bees are more tender, and suffer more from spring dwindling.

J. E. Pond—I have never kept bees inside, that is, I have always wintered them on the summer stands, but I see no reason why there should be any difference in tenderness, whether kept out-doors or inside; and, again, I cannot imagine how any one can judge accurately in the matter.

Mrs. J. N. Heater—Perhaps not, but they are sure to have brood earlier, and when placed out-of-doors will be tempted out in quest of water and pollen to feed their young, and perish in the cold; often to such an extent that not enough bees are left to cover the brood; and it, too, is chilled to death. My heaviest losses from spring dwindling have always been from colonies wintered in the cellar.

Dr. A. B. Mason—I believe they are, but a paper read at the Lincoln convention by Hon. E. Whitcomb, on the "Importance of Watering in the Apiary," and the discussion that followed, has somewhat changed my views in regard to spring tenderness, or spring dwindling, and I'm going to test the matter myself this spring.

General Items.

Prospects for a Grand Yield.

We have a prospect for a grand honey-yield the coming season, as the weather has been unusually warm, and rains plenty and gentle. I think we will have swarms by the middle of March. F. C. WIGGINS.
San Diego Co., Cal., Feb. 28.

Flattering Prospects, Etc.

We had a good season last year, and the prospects are exceedingly flattering for a good crop of honey next season, as we have had plenty of snow to keep the white clover well covered all winter. I have just examined the bees in the cellar, and find them to be in good condition. F. A. CROWELL.
Fillmore Co., Minn., March 3.

Report for Last Season.

Bees were, for the last season in part (east Pennsylvania) an entire failure. Last spring I brought out of the winter 10 colonies, increast them by natural swarming to 13 during the summer. I did not get one pound of surplus honey. I decreast the colonies by uniting weak ones to 11, and had to feed 150 pounds of sugar for winter stores, and they are now, so far, in good condition. Yesterday they had a lively flight. I still like bees very much, and hope they will do better next summer.
P. W. FLORES.
Lehigh Co., Pa., March 2.

Watering Bees—Wintering, Etc.

While I enjoy reading the experiences of others, I learn some things by experience and observation which may be of interest to them. I learned last summer that my bees needed a great deal of water, both fresh and slightly salt, and I supplied that want by boring two 3-inch holes about ¼ of an inch deep in a piece of board, and inverting in each a large glass can of water (one slightly salted), and fixing a frame over them so they would not tip over, and hanging them in the shade of a tree in the bee-yard. It was discovered to be quite remarkable, the amount of water they would take. If I neglected to fill them as soon as emptied, the bees would fairly swarm around me when I went into the yard, as to give me notice.

I also observed that they used more salt water than fresh, during the breeding season and honey-flow, and more fresh than salt later in the fall.

I learned in putting foundation into frames with three wires the long way, and a groove in the top-bar, to spring the upper wire down in the center about ½ inch, and the center and bottom ones up about ¼ and ½ inch respectively, before imbedding them into the foundation, then the upper wire holds the foundation in the groove until the bees get it fastened, and as the bees warm up the foundation the lower wires become straight, and the foundation does not bump and bulge between them.

To-day is warm and pleasant, the sun shining brightly, no snow, and my bees are having a fine flight, and cleaning up after about four weeks of confinement—the longest shut-in they have had, and I could not resist the temptation to peek into one hive and see what they were doing inside. Imagine my surprise at finding the hive *full* of bees, with patches of sealed brood nearly as large as my hand, and plenty of larvæ and eggs in three or four frames, in the center of the hive, and plenty of bees ready and willing to resent such untimely intrusion!

I packt my two colonies on the summer stands in 1895, and they wintered so nicely that I tried it again last fall, as follows:

I drove four stakes into the ground, about five inches from the corners of the hives, with the top about six inches above the top of the hive with one super on. Then I stretcht a strip of tar felt around them, put a piece of burlap on the section-holders, and filled the super with dry leaves, and packt between the felt and hive, and over the top, with leaves, leaving them high in the center; and I stretcht a piece of felt over the top, fastening it down by nailing strips of lath around on top of the stalks. I suppose chaff would do as well, but there is nothing in the leaves to call mice, and I can get any quantity of them by going into the timber and scooping them up. I shall leave them packt until the nights are warm, and then save *all*, to be used again.
H. W. CONGDON.
Cass Co., Nebr., Feb. 15.

That Utah Honey in Nebraska.

I would like to say through the American Bee Journal, in answer to Mr. J. M. Young, on page 132, that those "bummers," to whom he refers, paid me spot cash before the car of honey was loaded *here*, for that car of Utah honey, and a better price than was offered in Chicago, St. Paul or Kansas City. J. S. SCOTT.
Utah Co., Utah, March 8.

Mild Winter—Bees All Right.

Our winter is very mild—we have had almost no snow, and bees have a flight every few days. I think they will come out in good condition this spring, but the honey-flow does not look overly promising for next season, as the clover is badly killed. I have 60 colonies of bees, and they seem to be all right. Last year we had only about half a crop, and prices were low at that, with commission swindlers still worse than ever. I hope they will be stopt.

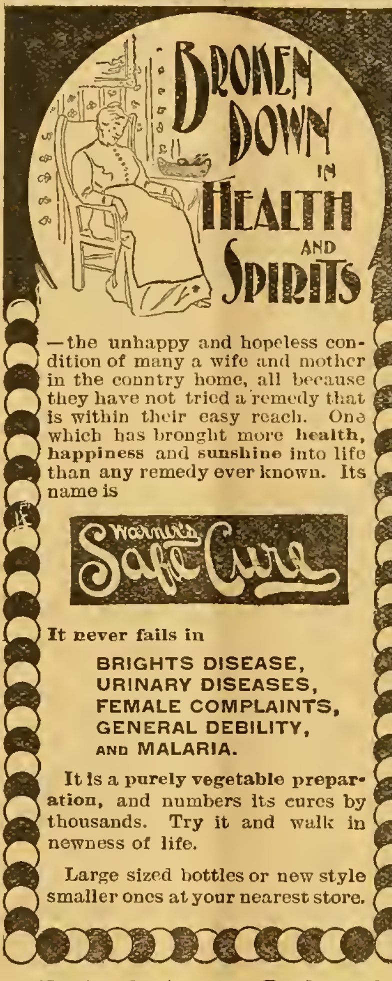
I am very much pleased with the Bee Journal. JOHN HOFFMAN.
Waupaca Co., Wis., Feb. 22.

Notes from Tennessee.

As each week passes by, I look forward to Thursday night, as the time when the Bee Journal will arrive, so rarely does it miss.

The past year was not anything extra as a honey-year. The only flow of much consequence was the fall flow from asters, which was very good. Linden made a complete miss last year, so I am expecting a flow from that source the coming season. White clover and asters are both looking well, and a better stand than is generally seen. The saw mills have nearly cut up all the large poplar timber, so we have no honey-flow of any account from that source. But poplar is just as doubtful as anything, at any time, and any place, for honey; for sometimes you will get a good deal of honey from it, and sometimes hardly anything, altho to look at the poplar bloom you can tell no difference, only by the working of the bees.

I produce only extracted honey, and offer for sale no honey of inferior quality. I use my off grades for feeding purposes. So, after I have sold a certain man one lot of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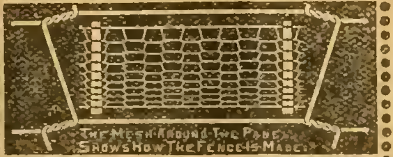
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honey, and explained my guarantee of purity, etc., I don't have to do so any more. And as a natural consequence, I cannot produce enough to supply my trade.

On page 98, Mr. R. C. Aikin compares the cost of comb and extracted honey, and he says: "Root lists uncapping knives at 70 cents, uncapping cans at $7, and extractors at various prices; also buckets, strainers," etc. Well, I am inclined to think that he could have said: "To commence producing extracted honey it will cost thus and so," for it takes just the same utensils to produce 50 gallons of extracted honey as 500 gallons, but of course more storage is needed, and more is required to harvest the larger amount.

But what I mean is this: All the heaviest cost of producing extracted honey falls on the first lot, be it 50 or 500 gallons. And comb honey costs just the same, year after year, unless the price of supplies should vary.

So, just taking Mr. Aikin's statement as correct in the other details (which I admit), it must be considered as an extra good article, well worth attention.

I am very sorry the two Unions did not unite, as I am in line with the new Union's work of prosecuting adulterators.

J. A. BEARDEN.

Lincoln Co., Tenn., March 1.

Apparently in Good Condition.

I bought a colony of bees in April, '95, and now I have seven, all but one apparently in good condition. I packt them last fall on the summer stands for winter, and without any advice or special knowledge. I think I have them pretty secure, as a few days ago all but one showed up nicely while flying around the hives. I have three Langstroth hives, and the others are in the Hubbard hive.

D. W. WILL.

Somerset Co., Pa., Feb. 27.

Bees in Good Condition.

I would not lose one copy of the American Bee Journal. I depend upon it a great deal.

My bees are in good condition, and I expect a good crop this year.

ROBT. WILLIAMSON.

Choctaw N., Ind. Ter., March 4.

Wintering Well So Far.

My bees are wintering well, so far. I have lost one colony out of 102 here at home. I have not visited the other yards. The American Bee Journal is a welcome visitor.

GEO. P. TAYLOR.

Wyoming Co., Pa., March 6.

Report for 1896.

I put 39 colonies into the cellar last fall, and in 1896 took about 600 pounds of extracted and 400 pounds of comb honey from 18 colonies, spring count. I like the American Bee Journal very much, and would not like to be without it.

J. H. MILLER.

Ramsey Co., Minn., March 8.

Taking Bees Out of Trees.

First, prepare a carrying box of light wood, that will hold four or five frames. It should be deeper than the hive to which they belong, to give room for the bees. Allow two inches for each frame. Instead of rabbets for the frames to rest on, nail strips across the ends, with notches cut in for the frames to rest in; nail one strip across the center below, notcht, for the frames to rest in, to prevent their sagging or swinging about. Notch a strip to fit down on the frames, to be held in place by the lid when screwed down.

There must be a false bottom-piece to each frame with strips of tin tackt onto each side at the end, projecting forward ¼ inch, so that it can slide up and down, and not swing from side to side. It must have

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If you care to know of its Fruits, Flowers Climate or Resources, send for a Sample Copy of California's Favorite Paper—
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Up till the middle of April at these prices: Untested, 75c.; Tested, $1.25.
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Yellowzones for PAIN and FEVER.

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which represent the best of their kind. The engines are **simple** and **compound, traction** and **portable.** They range in horse power from 8 to 20, and are constructed of the best material throughout, having in view large **traction power, easy steaming qualities, simplicity** and **durability. THE RUMELY SEPARATORS** combine the **apron** and **vibrator** principle in one machine, which produces a separation of grain not attained by other machines. They are **fast, clean, economic** threshers **1897 catalogue mailed free.** Write today
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Mention the American Bee Journal. 4Atf

JACK AT ALL TRADES.
"A farmer should be able to construct everything needed on the farm" (?) If he wants a wagon, buy a few tools, spokes, hubs, felloes, etc. and make it. His time is nothing—"he can't afford to help support big factories." The average farmer will advise you to "tell that to the marines," but many of them listen to just such arguments on the fence question. Are they wise?
PAGE WOVEN WIRE FENCE CO., Adrian, Mich.
Mention the American Bee Journal.

Free Farm Labor Bureau.
In order to assist the thousands of unemployed men in Chicago, the Workingmen's Home, at 42 Custom House Place, has established a Free Labor Bureau, and is prepared to furnish men to farmers and others in all parts of the country without expense to either. Employers applying should state definitely as to the kind of work, wages to be paid, and if railway fare will be advanced.
LABOR BUREAU, WORKINGMEN'S HOME,
42 Custom House Place, CHICAGO, ILL.

an opening in the side, 3x5 inches, covered with wire cloth for ventilation.

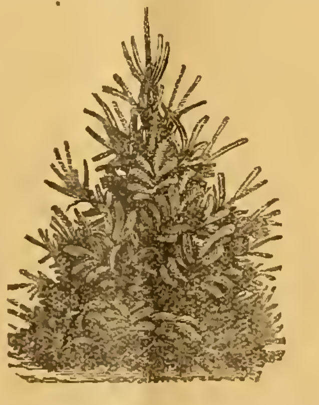
Open the tree on the top over the bees, so as to expose all the combs. Take out the combs and fit suitable ones into the frames, and tie them with corset braid tight enough to draw the false or sliding bottom lath up beneath close. Use two strings to each comb at least. When all the combs are out of the tree, and all suitable ones in the frames, set the box so that the bees can enter easily. Gather up a few handfuls and dump them into the box before screwing the top on, and with a feather and a little smoke drive the rest toward the entrance. When all are in, close the entrance.

Transfer the frames to the hive, when you get home, put on the cover and dump the bees out of the carrier on a sheet so they can go in. When the combs are well sealed to the frames, remove the braid and false bottom lath, and examine for the queen.
A. E. TAYLOR.
Cumberland Co., Pa.

◆

That Evergreen Specialist—D. Hill, of Dundee, Ill.—has issued a 32-page price-list of Evergreens, Fruit Trees, Ornaments, etc. Besides this, there are carefully prepared directions and instructions for handling, planting and caring for evergreens, gained by 30 years' experience, which are worth hundreds of dollars to every planter.

On a supplement there is a short essay taken from the Iowa State Horticultural Report for 1897, which gives the history of a



"Noble Evergreen Grove" of 500 Scotch pines seven years after planting. The owner values it at $1,000, and others say good things about such groves. Every farm owner seeking the best happiness as well as protection for winter and summer should read this essay.

To cap the climax, however, there are offered 50 of the greatest bargains ever offered in this country. For $1.00, one can have laid down at his door by mail, from 20 to 100 of almost any variety of evergreens that will grow in America; 50 to 100 of nearly any of the forest trees; 12 best apple trees; 12 to 20 grapevines, and samples of nearly everything. Then for $5.00 to $10.00 one can have by freight, prepaid, almost any size or number of the beautiful, rare, or useful evergreens. But why enumerate more, when the nurseries are complete, and a postal card will bring full and free information? Address, D. HILL, Dundee, Ill., mentioning that you saw his advertisement in the American Bee Journal.

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SPECIAL OFFER Made to secure 500,000 new customers. GEM COLLECTION
6 PKGS. Choice Seeds sure to grow and blossom, postpaid for 10 CTS.
NOTE THE VARIETIES:—Poppy, 50 newest colors; Verbena, 15 best varieties, Godetia, 20 sorts; Candytuft, 10 shades, Sweet Peas, 20 new kinds and Mignonette, 10 elegant varieties
A. B. Webb, Philadelphia, Pa., writes: "The collection of seeds grew and blossomed beautifully."
WRITE TO-DAY; MENTION THIS PAPER and receive New, Instructive and Beautiful Seed and Plant Book.
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BEE-KEEPERS! Let me send you my 64-page Catalog for 1897.
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Beeswax Wanted for Cash
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Foundation—Sections—Hives
or any Other Supplies.
Working Wax into Foundation for CASH A Specialty.
☞ Write for Catalog and Price-List, with Samples of Foundation and Sections.
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AUGUSTA, WIS.

JUST ARRIVED!
My first carload of Goods from **The A. I. Root Co.** has arrived, and I am in shape to fill all orders promptly at their catalog prices. Send for my 36 page catalog; also list of Goods you will need, and I will make you special prices on early orders.
GEO. E. HILTON,
9D9t **FREMONT, MICH.**
Mention the American Bee Journal.

FOR SALE **At Beeville, Tex.**—200 Colonies of first-class Italian Bees. $600 cash, to close out. Address,
10A4 **S. A. LEEDS, Avery Island, La.**

TO BE HUNG!
OUR SHINGLE is now hung out, notifying the public that we are again **ready to ship Queens.** Having greatly enlarged our facilities, can fill orders **by return mail.**
Golden Beauties, 3 Band Italians
Also Silver-Gray Carniolan.
Warranted Queen, 50c.; Tested, 75c. Make Money Orders payable at Caldwell, Tex. Send for Catalog of **Bee-Keepers' Supplies.**
Address, C. B. BANKSTON,
11Atf CHRIESMAN, Burleson Co., TEX.
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HONEY and BEESWAX

MARKET QUOTATIONS.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

NO. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

Chicago, Ill., Mar. 9.—Fancy white, 11@12c.; No. 1, 10c.; fancy amber, 9c.; No. 1, 7c.; fancy dark, 7@8c.; No. 1, 6@7c. Extracted, white, 5@7c.; amber, 5@6c.; dark, 4@5c. Beeswax, 25@27c.

For all bee-product, with exception of beeswax, there is a slow demand, with ample stocks.

Albany, N. Y., Mar. 6.—Fancy white, 12-13c.; No. 1, 11-12c.; fancy dark, 7-8c.; No. 1, 6-7c.; Extracted, white, 5½-6c.; dark, 4-5c.

The honey market is very quiet and stock moving very slowly, even at reduced prices. White clover is not plentiful. Extracted is moving very slowly, but we hope for an improved demand soon.

Indianapolis, Ind., Feb. 20.—Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Boston, Mass., Feb. 20.—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Cleveland, Ohio, Feb. 20.—Fancy white, 14½@15c.; No. 1 white, 12½@13c. Extracted, white, 6@7c.; amber, 4½@5½c. Beeswax, 22@25c.

There is not very much honey in our market Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

St. Louis, Mo., Feb. 19.—Fancy comb, 12@@13c.; No. 1 white, 11@11½c.; amber, 9@10½c.; dark, 7@8½c. Extracted, white, in cans, 6@7c.; amber, in barrels, 4@4½c; extra, 5c.; dark, 3@4c. Good demand for barrel stock—comb slow sale. Beeswax, 23@23½c.—prime finds ready sale at 23½c.

San Francisco, Calif., Feb. 24.—White comb, 9-10c.; amber, 5-7c. Extracted, white, 5-5½c.; light amber, 4-4½c.; amber colored and candied, 3¾c.; dark tule, 2¾c.

Beeswax, fair to choice, 23-26c.

Philadelphia, Pa., Feb. 2.—Fancy white comb, 12-13c.; fancy amber, 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3½-4c. Beeswax, 25c.

Season is getting over for comb honey—very little demand. Extracted in good demand.

New York, N. Y., Feb. 20.—There has been a little better demand for comb honey during the last two weeks. Prices, however, will not improve, as the season is too far advanced and plenty of stock laying on the market. We have a good demand for extracted buckwheat, candied, and bee-keepers having their crop on hand yet, should now market it.

Beeswax is quiet at 26 28c., according to quality.

Cincinnati, Ohio, Mar. 9.—Demand is slow for extracted and comb honey. We quote comb honey at 10@13c.; extracted, 3½@6c. Dark comb seems to be an unsalable article at this time of the year.

Beeswax is in fair demand at 22@25c. for good to choice yellow.

Kansas City, Mo., Mar. 10.—No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 9@10c.; No. 1 dark, 8@9c.; Extracted, white, 5@5½c.; amber, 4½@5c.; dark, 4@4½c. Beeswax, 25c.

Detroit, Mich., Mar. 12.—No. 1 and fancy white comb, 11-12c.; other brands, 7-10c. Extracted, white, 5-6c.; amber and dark, 4-5c. Beeswax, 24-25c.

Minneapolis, Minn., Feb. 20.—Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Buffalo, N. Y., Mar. 5.—Demand a little better, but 10c. continues the prevailing price for strictly fancy 1-pound comb. Occasionally 11c., perhaps, in a peddling way. Other grades range from 8@4c., as to kind and quality, etc. Extracted, 4@5c.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. Burnett & Co., 163 South Water Street.

New York, N. Y.
Hildreth Bros. & Seoelken,

Kansas City, Mo.
C. C. Clemoms & Co., 423 Walnut St.

Buffalo, N. Y.
Batterson & Co., 167 & 169 Scott St.

Hamilton, Ills.
Chas. Dadant & Son.

Philadelphia, Pa.
Wm. A. Selser, 10 Vine St.

Cleveland, Ohio.
Williams Bros., 80 & 82 Broadway.

St. Louis, Mo.
Westcott Com. Co., 213 Market St

Minneapolis, Minn.
S. H. Hall & Co.

Milwaukee, Wis.
A. V. Bishop & Co.

Boston, Mass.
E. E. Blake & Co., 57 Chatham Street.

Detroit, Mich.
M. H. Hunt, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
Walter S. Pouder, 162 Massachusetts Ave.

Albany, N. Y.
Chas. McCulloch & Co., 380 Broadway.

Cincinnati, Ohio.
C. F. Muth & Son, cor. Freeman & Central avs.

Honey - Clovers !

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5℔	10℔	25℔	50℔
Alsike Clover	$ .70	$1.25	$3.00	$ 5.75
Sweet Clover (white)	.60	1.00	2.25	4.00
White Clover.......	.90	1.60	3.75	7 00
Alfalfa Clover.....	.60	1.00	2.25	4.00
Crimson Clover....	.55	.90	2.00	3.50

Prices subject to market changes.

Add 25 cents to your order, for cartage, if wanted by freight.

Your orders are solicited.

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CHICAGO, ILLS.

One Cent invested in a postal card will get my large Catalog of All Root's Goods. Send list of what you want, and get price.

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PATENT WIRED COMB FOUNDATION

Has No Sag in Brood-Frames

Thin Flat-Bottom Foundation

Has No Fishbone in the Surplus Honey.

Being the cleanest is usually worked the quickest of any Foundation made

J. VAN DEUSEN & SONS,
Sole Manufacturers,
Sprout Brook Montgomery Co., N. Y.

Mention the American Bee Journal.

Doctor's Hints

By Dr. PEIRO.

100 State Street, ⁂ CHICAGO, ILL.

Measles.—Very little is required in these cases if the patient is kept in a moderately warm room. The greatest danger results from exposure to colds, when the disease is apt to attack the lungs, eventuating in pneumonia. It has in rare cases so affected the kidneys as to lay the foundation for Bright's disease. Plenty of warm drinks and gruels are safegards in measles.

Sore Throats are common at this season, but should be given prompt and careful attention, not so much for the present conditions as in anticipation of the aggravated results which are likely to occur if neglected. Camphorated ointment—before referred to in this column—is an excellent application outside the throat, protected by a substantial linen bandage. It should be kept on until well. If fever exists, a drop of tincture of aconite every hour will relieve it. A gargle of one teaspoonful of soda, six of honey, and a quart of water—a mouthful used every hour—affords quick relief.

Well, I suppose it is not always convenient to obtain the remedies prescribed, simple as they are, but if every home kept a family case of medicine—such, for instance, as the publishers of this paper will send you a description of upon request—you would then have no trouble.

Bed-Wetting.—I have received many letters from anxious mothers regarding this unfortunate habit afflicting their children. I say to them, don't worry; much less make insinuating and cruel remarks to the little ones regarding it. They cannot help it. What you consider laziness on their part is a form of nervousness they cannot overcome until the system matures. Medicines are generally worse than useless. Simply bear their troubles patiently—yes, comfort and console them. A mother's kiss is vastly more effective than a lot of scolding.

Rheumatism.—The kind of rainy, foggy weather that has recently prevailed is likely to make itself felt in the joints and muscles of the middle-aged. Where one can do it, the hugging of a hot stove is one of the best remedies. Warmth is absolutely essential—the more intense the heat the better.

A few drops of bryonia every hour or two helps mightily to keep down the sharp pains that often attends the stiffness of the joints.

Earache, too, is likely to attack the younger members of the family from the same cause. A little camphorated ointment melted in a teaspoon and poured into the ear pretty warm, soon lets the child into happy slumbers. DR. PEIRO.

FOR SALE!

40 acres of land suitable for the growing of oranges, lemons or olives; situated in San Diego Co., Calif., with a well-equipt apiary of 120 colonies of bees in good condition; 3-room house, with good water. Apiary produced over five tons of fine comb honey from 90 colonies of bees in 1895. Price, $2.000.

Address, **Dr. P. J. PARKER,**
11A3t 955 5th St., SAN DIEGO, CALIF.

Mention the American Bee Journal.

Cockerels **A Choice Lot** of thoro'bred S. C. Brown Leghorns, $1.25 each. Eggs from same breed in season $1.25 for 15. Also **PLANTS**—Strawberry, Red and Black Cap Raspberry.

Will stuff and mount birds and animals to order. Price for small birds and animals 60 cts., and upward according to size.

Mrs. L. C. AXTELL,
7Atf ROSEVILLE, Warren Co., ILL.

FREE —A Copy of— **Successful Bee-Keeping,** by W. Z. Hutchinson; and our 1897 Catalog, for 2-cent stamp, or a copy of the **Catalog for the Asking.** We make almost **Everything** used by **Bee-Keepers,** and at **Lowest Prices.** OUR

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are warranted
Superior to All Others.

Don't buy cheaply and roughly made Goods, when you can have **the best—such as we make.**

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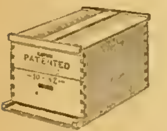
[monthly, now in its 7th year]
36 Pages—50 Cents a Year.
SAMPLE FREE—ADDRESS,

THE W. T. FALCONER MFG. CO.,
JAMESTOWN, N. Y.

Mention the American Bee Journal.

The "Danzenbaker" Hive



Has valuable features possest by no other, and is surely winning its way; was awarded a Special Diploma, and 1st Premium for COMB HONEY, at Mich. State Fair, 1896

Address,
Francis Danzenbaker, Medina, Ohio.
Care The A. I. Root Company.

I ARISE

TO SAY to the readers of the BEE JOURNAL that **DOOLITTLE** has concluded to sell —BEES and QUEENS— in their season, during 1897, at the following prices:

One Colony of Italians on 9 Gallup frames, in light shipping-box	$6 00
Five Colonies.....	25 00
Ten Colonies......	45 00
1 untested queen.	1 00
6 " queens	5 50
12 " "	10 00
1 tested Queen...	$1 50
3 " Queens.	3 50
1 select tested queen	2 00
3 " " Queens	4 00
Select tested queen, previous season's rearing .	4 00
Extra Selected for breeding, THE VERY BEST..	5 00

About a Pound of BEES in a Two-frame Nucleus, with any Queen, $2.00 extra.

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☞ Circular free, giving full particulars regarding the Bees and each class of Queens.

Address
G. M. DOOLITTLE,
11A25t BORODINO, Onon. Co., N. Y.

BEST ON EARTH!!

18 years the Standard. The 4-inch "Smoke Engine." Is it too large? Will it last too long? Will save you lots of money and bad words. Send for Circular. 6 sizes and prices of Bingham Smokers and Knives.

T. F. BINGHAM, Farwell, Mich.
5Atf *Mention the American Bee Journal.*

STRICTLY PURE
! BEESWAX !
Bee-Keepers and Accumulators in the U. S.,
ATTENTION!
It may be of advantage to you communicate with us if you have Pure Yellow Beeswax for sale. No impure wanted. We are buyers.
Address, **BARGET & HEIB,**
8 S. William St., - NEW YORK, N. Y.
Mention the American Bee Journal. 8A4t

20th Year **Dadant's Foundation** 20th Year

Why Does It Sell So Well?

Because it has always given better satisfaction than any other.

Because **IN 20 YEARS** there have not been any complaints, but thousands of compliments.

We Guarantee Satisfaction.

What more can anybody do? **Beauty, Purity, Firmness, No Sagging, No Loss. Patent Weed Process of Sheeting.**

Send Name for Our Catalog, Samples of Foundation and Veil Material. We sell the best Veils, cotton or silk.

Bee-Keepers' Supplies of All Kinds.

LANGSTROTH ON THE HONEY-BEE, Revised.
The Classic in Bee-Culture—Price, $1.25, by mail.

CHAS. DADANT & SON,
Please mention the Am. Bee Journal. **HAMILTON, Hancock Co., ILL.**

4¼ SECTIONS 4¼ SECTIONS

Our business is making Sections. We are located in the basswood belt of Wisconsin; therefore the material we use cannot be better. We have made the following prices:

No. 1 Snow-White.		No. 1 Cream.	
500 for	$1.25	500 for	$1.00
1000 for	2.50	1000 for	2.00
2000 for	4.75	2000 for	3.75
3000 for	6.75	3000 for	5.25

If larger quantities are wanted, write for prices.

Price-List of Sections, Foundations, Veils, Smokers, Zinc, Etc., Sent on application.

6A35t **MARSHFIELD MFG. CO., Marshfield, Wis.**

ROOT'S GOODS! ❋❋❋❋❋

☞ Before placing your order for this season, be sure to send for Root's

1897 Catalog, Ready Now.

Our 1897 Hives, with improved Danzy Cover and Improved Hoffman Frames are simply "out of sight." Acknowledged by all who have seen them to be a great improvement over any hive on the market, of last year.

Comb Foundation

Cheaper and better than ever—clear as crystal, for you can read your name through it. Process and machinery patented Dec. 8, 1896. Samples of the New Foundation free.

THE A. I. ROOT CO.
Factory and Main Office, **MEDINA, O.**

BRANCH OFFICES:
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1024 Miss. Str., St. Paul, Minn. **Mechanic Falls, Maine.**
10 Vine St., Philadelphia, Pa.
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AMERICAN
BEE JOURNAL
DEVOTED EXCLUSIVELY TO THE INTERESTS OF HONEY PRODUCERS

37th Year. CHICAGO, ILL., MARCH 25, 1897. No. 12.

BIOGRAPHICAL

REV. STEPHEN ROESE.

We received notice last week of the death of Rev. Stephen Roese, of Salem, Pierce Co., Wis. He died March 9, 1897, after a lingering illness, aged nearly 68 years. Some years ago he was well known as a contributor to the columns of the American Bee Journal, and often translating interesting articles from German periodicals.

His first wife, formerly Kathrine Wurst, died Dec. 13, 1865, at East Farmington, Wis., leaving him with four small children, namely: Augustus, Lizzie, Alfred and Ina. He then moved to Davenport, Iowa, where he married Martha Olson, Dec. 26, 1866, who still survives him. By this union three children were born: J. C. Roese, Mrs. Minnie Wagner, and Rosa C. Roese, who preceded her father into the Valley of Death two years ago last December.

In the American Bee Journal of April 6, 1889, there appleared the following sketch of Mr. Roese, written by himself:

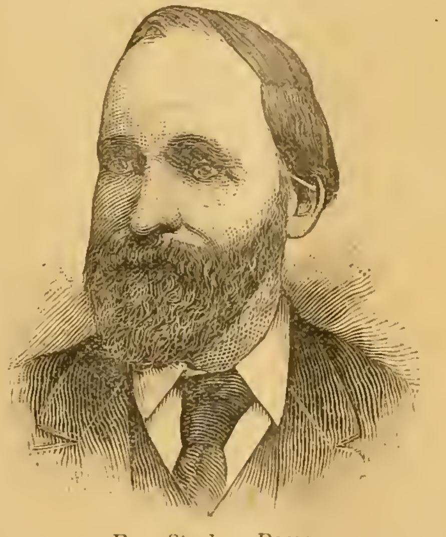
I was born July 3, 1829, in the town of Wohra, Electoral Hesse-Cassel. My parents were at one time well-to-do farmers; my father having served in the great war against Napoleon Bonaparte, from 1806 to 1815, in both the decisive battles of Leibzig and Waterloo. He was given to strong drink, which brought the family to want and loss of home. My good mother died when I was 10 years of age, and my father was accidentally killed (while intoxicated) by a wagon being upset in a dug-out road, leaving me an orphan at the age of 13. While standing at my father's grave, and seeing my last earthly hope lowered into its bosom, I gave myself into the keeping of Him who has promist to be "a father to the fatherless," and vowed sacredly to God, by His help, that as whisky had killed my father, it should never kill me. This promise laid the foundation for my life of total abstinence.

At the age of 20 I was drafted into the military service, in 1849, at the time of the general revolution in Europe, and my five years of military service was a constant equipment, and moving to and fro during the Crimean war. On petition I was granted a furlough to go on a visit to Holland. At Rotterdam I took passage for London, England, where I was in a strange land with a strange language, making my home near White Chapel, London. I met with a German missionary there, whom I assisted in his ardent labors, and helpt in the Sunday school.

After three months in that noted city, I longed to cross the Atlantic, the land of the free, where my sister in Rockland county, N. Y., was waiting for me. On my arrival at New York, Oct. 30, 1855, by recommendation of the German London Missionary Society, I was employed as colporteur among the Germans by the American Tract Society. During that four years I studied and fitted myself for a better work. By experience and change of views I became connected with the Baptist Mission, and entered the services of the American Baptist Publishing Society as missionary among the Germans in the Upper Mississippi Valley, from which service I was compelled, by sickness, to retire two years ago. I am now doing Bible work for the same society, as my health and strength permits.

For many years I had a longing desire to study the nature of honey-bees, but I feared their stings. At last I became owner of a colony of bees, which I moved in midwinter, and I wonder now how they lived through, for I nearly worried them to death, carrying them up and down stairs until, in the spring, hardly a handful of bees were left. They swarmed, but the next winter they all died.

My desire to keep bees was so strong that I bought another colony the next spring. On taking them home, a distance of 13 miles, the roads being miry and bad, I ventured to drive on the ice of Lake Pepin. After getting on the ice (I did not know it was springy near the shore), I soon found myself with the horse, buggy and bees immerst in water. By the help of some skaters near by, I saved the horse, but my bees could not endure so much water, and I had to purchase another colony; this, however, lived and did well until the following winter, when they all perisht. After that I obtained a colony of hybrids, and having heard and read of the Langstroth movable-frame hives, and many other improvements, I was not slow to avail myself of these advantages, and I feel grateful for them, in which all modern bee-keepers are partakers, and which the venerable Father Langstroth was instrumental in giving to the world.



Rev. Stephen Roese.

The instructive reading of bee-periodicals, the exchange of thought and experience of bee-keepers, queries and answers, etc., all has a tendency to make bee-keeping one of the most fascinating industries in the world. Show me a successful bee-keeper and I will show you an intelligent person.

Intelligence being the moving power in this great onward work, they are a combined brotherhood, ready to sacrifice and stand by each other in time of need. Comparing the tenor of the bee-periodicals at the present date with those of years gone by, it can be truly said that knowledge is increasing.

Contributed Articles

Amalgamation, Adulteration of Honey, Etc.

BY REV. EMERSON TAYLOR ABBOTT.

"Amalgamation" having failed, what next? The proper course to pursue seems very plain to me. In fact, I was in favor of this course at Lincoln, for, as soon as I heard Mr. Newman's paper on the subject, I felt sure that under present circumstances, a "union" was not possible. I am in favor, as I was then, of the United States Bee-Keepers' Union going on with its work just the same as though there were no other society in existence.

We claim all the time that there are 300,000 bee-keepers in the United States. Only a very few of these belong to the old Union, and it would seem that there is abundant room and work for the new society. I know that the old society claim that they have some money, and that that is what we are after. It seems to me that it will not take the new society very long to have as much, or more, money, if they will go at it the right way. The rest of the 300,000 bee-keepers who do not belong to the old Union have the cash on hand, which they have not paid in for membership, and all that is necessary is for them to hand over a dollar each to Dr. Mason, and then they will belong to a society that has more money than the old Union.

But, says someone, "You people have no right to use the name 'Union,' as it belongs to the *old* society, and you may get an injunction suit on your hands, if you persist in using it." Well, I am not so sure that we have no right to use the word Union, but as we used it only because it was thought it might prove an aid in amalgamating the two socities, I now move you, Mr. President, that we drop the word "Union" from our name, and use in its stead the word "Alliance." If I can get a second to this motion, I hope, Mr. President, you will put the question at once.

Just try that name and see how it sounds—The United States Bee-Keepers' Alliance. Not bad, is it? This would give us a clear field and no cause for hard feelings, or the writing of harsh things. If our friends of the old Union do not want to come with us, that we may do them good, then we will just go quietly but earnestly on our way, and try to do ourselves and the rest of the fraternity some good. What have the 76 members of the United States Bee-Keepers' Union to say to this? Let us have an expression on the subject.

Now a word about the

AIM OF THE NEW UNION.

I very much fear some of our friends are getting a little rash in their talk about lawsuits, etc. Of course it sounds well and appeals to the masses in these days when everybody is wanting a law past to aid and abet his pet hobby. It is said sometimes that the way to prevent war is to keep a strong navy and a big standing army. This is my idea of a well-organized bee-keepers' society. It would soon become a power in our body politic which would command respectful attention, and I apprehend that we would not then have to meet with some other society in order to get reduced rates! It seems to me that there are enough of us to command some attention on our own account, if we can only get together. However, while we are doing this, in order to prevent other unlawful combines from injuring us, let us be a little careful that *we* do not try to form an *unlawful combine*. The *masses* always have rights which are above those of the *classes*. Someone says that we want a powerful society so that we can imprison the adulterators, and *raise the price of honey*. Now, what has the law to do with "raising the price of honey"? For whose benefit should the price of honey be raised? for the benefit of 300,000 bee-keepers who are producers, or the benefit of the rest of seventy million people who are consumers, or should be?

It seems to me that the man who sets this up as a motive for the prosecution of those who adulterate honey, takes a narrow and altogether selfish view of the subject. If this is the only reason why the adulteration of honey should be stopt, then it would better go on, for the masses are interested in getting honey as cheaply as they can.

Another man proposes that we besiege the halls of congress and have a law past making it unlawful to manufacture glucose. Why? "Because," he says, "it is used only for adulterating purposes." If that same man has watcht the papers very closely, he has no doubt learned that the committee at Washington who have been working on a revised tariff law, in the interest of all the dear people, decided to put a protective tariff on chicory to protect (?) the farmers who are engaged in this industry. Now, what is chicory used for? *Adulteration* only, as every one knows. Funny country this, a law to suppress one adulterant and one to protect another!

But, says some one, chicory might be used as a substitute for coffee. So might glucose be used as a substitute for cane syrup, and it is not a bad substitute, either.

Another says, "Are you in favor of adulteration?" No, sir, I am not! but I do not think Congress or any State legislature has a right to pass a law to suppress any harmless industry simply because that by so doing those who are engaged in some other industry will get more for their product. This is what I call *class legislation*, pure and simple, and twist it any way you will, it is contrary to the spirit, if not the letter, of the Constitution of the United States.

Why, then, should the adulterators be punisht? Because adulteration is a *fraud* on *society*. If any man wants to sell glucose he has a perfect right to do it, if it does cut down the profits on my product. If he wants to sell gluscose and honey mixt, he has the right to do it, but should be compelled to label it what it is. To sell it for anything else is a fraud, and should be recognized as such by society, and by the statutes of the United States, and of every State in the Union. Do we want to unite, then, to have laws past making it a crime to put false labels on honey alone? No, sir, we do not. Here the idea of self comes in, and the interest of a class only is thought of. We want to unite that we may join forces with other industries to have only one law past, to make it a criminal offense to put a false label on any kind of food or medicine. Such a law would be in the interest of all the people, and not simply in the interest of a class engaged in some special industry. This State is spending a great deal of money with the avowed purpose of helping the dairy industry; but notwithstanding there is a law on our statute books making it a misdemeanor to adulterate any kind of food or medicine, those who have the matter of the enforcement of the laws in hand pay no attention to the people who are openly and boldly mixing glucose and honey, labelling it "Honey," "Fine Clover Honey," or some other name, which they think will strike the fancy of the consumer.

The agents of the State Board of Agriculture can scent oleo a long ways off, but they would not know glucose from honey if it was stuck square under their noses. It is about time, I think, that we begin to spend the money raised by taxation in the interest of all the people, and stop passing laws in the interest of special industries. Buchanan Co., Mo.

[See editorial remarks on the foregoing article, on page 184.—EDITOR.]

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Close Spacing to Get Bees Into the Supers.

BY J. E. POND.

The following questions have been referred to me for reply:

"Referring to page 22, Vol. XXXII, will Mr. Pond kindly tell us how he does it? For 12 years he claims to have used with success a means of getting the bees into the supers, termed "close spacing," and I am anxious for more minute details. If it be really as good a device as Mr. P. claims it to be, it would be as well were the Hoffman frame rendered in future suitable for closer spacing. To that end the top-bar needs to be just so much shorter as to allow of the frames telescoping a little into each other, as it were; shifting them to the right and left alternately. When returned to their normal position, a thin strip (equal in width to the bit sawn off, to allow of telescoping) has merely to be laid in the tin rabbet.

"Who else among our experts has tried this close-spacing idea? Does it always succeed with them? What say the great experts, the oracles, hereanent? S. A. DEACON."

Some years ago, while experimenting in another direction, I found that spacing frames in the brood-chamber just bee-space apart, did cause the bees to work at once in the surplus chamber. To get "just bee-space apart," I put a ½-inch dummy in one side of a 10-frame Langstroth hive, and spaced the 10 frames evenly apart in the space left. The frames, however, must hang plumb and true, else the best effects will not be obtained.

The facts are as above stated; by so spaciug, the queen used the cells for brood, close up to the top-bar; very few braces were built, and the surplus chambers were immediately used.

In order to get correct spacing, I shaved each comb so that it was just ⅞ inch thick. My theory is this: It has been proved to my own satisfaction, that no matter how deep the brood-cells are left, brood is never sealed up over 7/16 inch in depth, while surplus is stored to full depth of cells, even if the cells are ⅝-inch deep or deeper. Now by spacing the frames in the brood-chamber, so that the cells can only be made 7/16-inch deep, such cells will all be used for brood; provided, of course, the surplus chamber is put in position while the flowers are secreting nectar.

I find the bees prefer the deeper cells to store honey in, and will use them in preference to the shallower cells for that purpose, and as they evidently aim to place their brood close up to their stores, they use the whole brood-chamber for that purpose, under the conditions above described.

I have been called a "crank" for expressing the above opinion, but the facts remain as above stated, and I am satisfied with this theory, till a better one is offered. Let the querist try it, and give the results he finds by so doing. I have had considerable correspondence on the subject, and have yet to learn of different results, where the idea I have exprest is fully carried out; but to give those results, the plan I have indicated should be strictly adhered to.

Bristol Co., Mass.

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How the New Deep-Cell Foundation is Made.

BY E. B. WEED.

EDITOR AMERICAN BEE JOURNAL:—In your issue of March 11, under the head of "The Proposed Deep-Cell Foundation," Mr. Hutchinson contributes an article so full of inaccuracies that I beg space to make some corrections, altho he leaves a loop-hole for escape by saying, "At least, that is the way it looks to me;" "I presume, but, of course, don't know positively," etc. He omits to say further that his statements are the merest guess-work, in which "the wish is father to the thought."

First, he tries to convey the impression that he has some idea of the way the new foundation is made, and gives an altogether erroneous impression. It is made much as the Given foundation is—both sidewalls and *base* being formed at one operation.

On page 148, details regarding the size are given that contradict another of Mr. Hutchinson's surmises. But he makes another statement that he does not qualify, viz.: He asserts that the comb from these deep cells remains unchanged by the bees. How they do it, I cannot say; but I know, and so do many others, that the deep-cell walls are so reworkt that they cannot be distinguisht from natural cells.

The truth of the whole matter is, we hope to have a new machine for making foundation. With it we aim to produce foundation with any thickness of base and any depth and weight of cell. After considerable experiment, The A. I. Root Co. lookt upon a foundation having cells about one-fourth inch deep as probably the most valuable for the production of comb honey, and decided to introduce it this season, rather to test the matter than with a view to encouraging opposition.

Medina Co., Ohio, March 15.

⁂

Another Chapter on Honey as Food.

BY PROF. A. J. COOK.

Every bee-keeper—indeed every person who has the care of any kind of live stock—is interested in food. In fact, no such limitation as the above need be given, for we all have to feed our own bodies, and the principles of nourishment are very much the same throughout the animal kingdom, from the lowest protozoan up to man himself.

All foods consist, when perfect, of four classes of elements, viz: the inorganic elements—which are already capable of being absorbed and need no digestion; the carbo-hydrates—sugars and starches; the fats—which are often clast with the last as the hydro-carbons—and the albuminoids. Every perfect food must have all of these elements. Thus we find these in milk and in eggs as these foods at times furnish all of the food of animals, if we except oxygen, which is really the most important of all, though we are not in the habit of speaking of it as a food. In this article we are only interested in the carbo-hydrates.

The carbo-hydrates are so called because they consist of oxygen, hydrogen, and carbou; and the oxygen and hydrogen are always in proportion to form water. Thus the symbol of water is $H_2 O$, and of sugar—the sugar of honey—$C_{10} H_{10} O_5$. In both these cases we see that there is just twice as many atoms of oxygen as there are of hydrogen. As stated above, this class of foods is made up of starch and the sugars. Honey consists mainly of sugar, and so belongs to this group.

As we all know, there are two groups of sugars—the cane-sugars and the glucose or grape sugars. Cane-sugar has a slightly different chemical formula from glucose sugar, and is sweeter, and not so easily assimilated by the tissues, and so must be digested before it is ready to be used by the body. It is well known that we use a great deal more of cane-sugar than we do of any other at the present time. In the olden days people ate honey, which consists of the glucose series of sugars, and needs no digestion. Thus many think, and with much show of reason, that honey is a much safer food than cane-sugar, and as it is more ready for the body and does not require energy in its preparation. The cane-sugars are often referred to as beet-sugar and cane-sugar, depending upon their origin. If secured from the beet, we speak of it as beet-sugar; if from the sugar-cane, as cane-sugar. This, however, is misleading, for both sugars, if prepared with equal care, are exactly identical.

If there is an odor or other peculiarity of beet-sugar not known to cane-sugar, (of course this latter term is wrongly used, as both are cane-sugars), it is simply because clarification has not been complete. It is a common opinion in California that fruit put up with beet-sugar is less likely to keep well than when put up with the sugar from the sugar-cane. I doubt if there is anything in this. I have used the beet-sugar the last two years freely in putting up fruit, and have lost none at all. We do find, however, in preparing the fruits that there is quite an unpleasant odor; as already stated, this must be owing to some lack in preparation. It is well to state here that when fruit spoils, it is owing to the presence of vegetable germs—microbes—which should never be present in fruit. If the fruit is thoroughly heated—it should be boiled for some minutes—and then sealed hermetically, so that the microbes cannot get into the cans, the fruit will never mold, ferment or decompose.

Glucose or grape sugar is used to refer to several kinds of sugars, which have usually been regarded by the chemist as identical. These are corn-glucose or the glucose of commerce, glucose of digestion (which is transformed cane-sugar or starch, acted upon by the animal juices of the intestines); honey, which is probably the same as the last mentioned, as the bees gather the cane-sugar from the flowers and transmute it by a digestive process into the wholesome and delicious honey; and liver sugar, which is a product of the liver. This last may be almost identical with honey-sugar. At least, like honey-sugar it is very easily assimilated, and so is just what the body needs for its nourishment.

As stated above, the chemist speaks of all these sugars as glucose or grape sugar, because they all act similarly in reducing the copper salts, which is the common test for this group of sugars. Cane-sugar does not respond to this test, and so is easily distinguisht by the chemist from any of the glucose sugars. It is safe to say, however, that these sugars are not all identical. Every well-informed bee-keeper knows that while honey is a safe food for his bees, commercial glucose is far from safe. Indeed, the bees refuse to take commercial glucose if they can get anything else. They seem to know that it is an unwholesome food, and thus only take it as a matter of necessity. They seem to say, "Better this then starvation." It is probable that if bees can fly regularly, commercial glucose might be a safe food; but it is certainly far from this when fed for winter supplies; in which case the bees have nothing else to feed upon for long weeks, possibly months of confinement.

Thus we have another reason for crying aloud and sparing not regarding the adulteration of honey and other food products by use of commercial glucose. Such action is not only a base fraud, but is also pernicious, in that it is giving to the people an unsafe food. If glucose will kill bees, it stands to reason that it is very probably deleterious to all animals, and should be relegated to the limbo of "innocuous dessuetude." It seems to me that it is not only the privilege but the duty of every person to work with a will—to fight by every possible means—the nefarious practice of adulterating food products with commercial glucose. I believe the Bee-Keepers' Union should at once commence this work, for it means a hard fight, and the Union alone can undertake such a battle with any considerable hope of success. I feel very certain that the Union can wage such a warfare and bring the iniquitous practice to an end.

Honey, as I have stated above, is a glucose-like sugar, and very likely identical with the sugar of digestion which we obtain when we take either starch or cane-sugar into our digestive cavity. It is found that sugar of honey is really two sugars, both of a glucose character; that is, both reduce the copper salts. But one of these sugars (dextrose) rotates the ray of light in the polariscope to the right, while the other (levulose) rotates the ray to the left. We see clearly then here that there are two kinds of sugar. Levulose is usually called "fruit-sugar," because it is very abundant in various fruits; it is very apparent that it is a very wholesome sugar, else fruit would not be such a rare and admirable diet.

Dextrose is more easily crystallizable than is levulose, and thus when honey granulates, or candies, as we term it, (these are simply other terms for crystallization) the dextrose crystallizes in the levulose. This is no disadvantage to honey; in fact is one of the best tests that the honey is genuine. With very few exceptions all honey will granulate when cooled down below 60°, and often at a higher temperature. Thus the fact that honey granulates is very good proof that it is genuine honey. The Thurbers, of New York, in apologizing for adulteration of honey, stated that they did it to prevent granulation. Customers did not like the honey to solidify, and by adding the commercial glucose (which as we have seen, is unwholesome if not actually poisonous) they retain the honey in the liquid form. Granulation does no harm to honey. Granulated honey can be easily reduced to the liquid state by heating, and if this is carefully done—the product should never be raised to more than 180° F.—it does no injury to the honey. I have found it true that if the honey is once liquefied and then sealed closely, it is very much less likely to re-granulate, even though the temperature be reduced below freezing. I have never been able to explain why this should be so.

From what has been said above, it will be seen that if we keep honey in a warm place, it will very likely retain its fluid condition indefinitely. I have thus kept ordinary honey for over a year which showed no sign of granulation. It is also true that occasionally we have honey that does not granulate at all. I do not know the cause of this, but venture the suggestion that honey is largely composed of levulose and has but little dextrose. I suppose it is the product of certain flowers, but may be owing to the kind of manipulation undergone while being transformed by the bees.

Some of our best physicians think, as they told me, that some of our worst diseases, like Bright's disease of the kidneys—which, as they claim, is more prevalent now than in the past ages of the world—is owing to the large consumption of cane-sugar. However this may be, I think we are safe in saying that honey is a safer sugar than cane-sugar. We know that sugar is a very necessary food; this is evident from the fact that the liver is very early to appear and very large in the newly-formed embryo; and what gives added force to the argument is the fact that a wholly pre-natal organ (the placenta) produces sugar before the liver is able to furnish a sufficient supply. The fact, too, that the young child so craves sweets, is another proof that sugar is a very important food element. Children then, should have all the sugar they desire to eat, but of course this should only be given to them at meal time. We shall be a much healthier people when we learn to to take our food at regular periods, the same time each day.

We all know that early childhood is a very susceptible period. All the organs at that time seem sympathetic. The cutting of a tooth may bring spasms and possibly death. Is it not wise, then, while we must give our children plenty of sweet, to give them honey? I believe that no parent can do a wiser thing than to furnish his young children with all the honey they desire to eat, giving it freely at each meal, but only at meal-time. Honey is surely a safe sugar.

The conclusions, then, that we arrive at in this article are as follows:

First, adulteration of food by commercial glucose is not only a fraud but a dangerous practice, and should be remedied at all hazards.

Second, the Bee-Keepers' Union is just the organization to commence this warfare, and carry it to a successful issue. Let us bravely on to the conflict, and not cry halt till this iniquitious practice shall utterly cease.

Thirdly, it seems more than probable that honey is a much safer food than is cane-sugar, and may well replace the latter whenever appetite will give its consent. This is specially true with children. Children should have all the sweets they crave, and honey may well be the source of such sweets. This should be given *ad libitum*, but only at meal-time.

Los Angeles Co., Cal.

The Salt-Water Cure for Foul Brood.

BY J. A. GOLDEN.

For the past year I have been searching and reading all the articles at my command on the cure of foul brood, bee-paralysis and other diseases, that have called the attention of apiarists to study the nature and cure for the various diseases of a virus nature that has attackt and destroyed thousands upon thousands of colonies of bees. I cannot find that electrolyzed clorid sodium water (salt water) has ever been tried or even spoken of in any article I have read on foul brood, and as no foul brood has ever been known to exist in this section of country, and not a single case of bee-paralysis can be found since my plain salt water cure has been used by every apiarist in all this section as a preventive and cure, I have had no opportunity to test it, altho, ofttimes, I have wisht for a single case of the most malignant form of each, so that I could thoroughly test the above remedy; but as I have neither, I write this short article to call the attention of those that may have the foregoing diseases among their bees, that a test may be made and results reported.

As T. S. Ford, of Mississippi, has been tussling to eradicate bee-paralysis from his apiary for sometime, I hope he will give the electrolyzed clorid of sodium remedy a fair test and report all the particulars of his test, the course pursued, etc.

Hear what Dr. Proger, of Asniers, says of electrolyzed clorid of sodium water: "It is neither caustic nor irritating; it may be applied to mucous membrane, as to the skin; it instantly removes all bad odors, stops all putrescent fermentation, kills microbes more effectually and rapidly than any other antiseptic, cleanses and heals fetid wounds, and ulcerous sores, and, in fact, is an ideal antiseptic in a medical point of view."

Having such a testimony from the experience of so high an author as the renowned Dr. Proger, would it not be wisdom on the part of apiarists to give the remedy a careful and thorough test?

Having never failed to cure a single case of bee-paralysis by the use of salt water, in all of my experience with the malady, I look forward for great results from the use of the new discovery—electrolyzed clorid of sodium.

COMB HONEY MANAGEMENT.

As I have never read Dr. Tinker's work, "Bee-Keeping for Profit," I could not give an intelligent answer to E. B.'s question on page 55, therefore I would suggest that E. B. set apart one colony, and give my method a practical test as described in the article mentioned, which is the most satisfactory way to settle questions of this kind, and save valuable space which would be necessary to give intelligent information through the bee-papers. Morgan Co., Ohio.

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Wintering Bees—Producing Comb Honey.

BY FRANK COLE.

The winter of 1894 and 1895 I wintered my bees in the cellar with both hive tops and bottoms off, with very little loss. In 1895 and 1896 I wintered my bees with the tops on, filled with dry sawdust, with no loss. This winter I am wintering 10 colonies outdoors. I placed the hives on some 2x4, edgewise, that leaves the hive, 4 inches from the ground, setting the hives 2 inches apart, in a row. Next I drove some stakes in the ground 6 inches from the hives, then put boards up against these stakes till they were above the top of the hive, then filled in and around, and covered up the whole top of the hive with good, dry sawdust. I left the entrance open. To do this I was careful to set the hives in a straight row so I can put an 8-inch wide board down flat edge against the front of the hive, and have it touch all of the hives square against the front end, so the sawdust will not rattle down in the entrance. The bottom-boards project out in front of the hives 6 inches or so, and on these I put some small strips like a short piece of lath, or ¼-inch lumber cut in small strips, these going in under the 8-inch board. That leaves a good space for the bees to fly out in winter. The hive is packt with sawdust all around in under and around the 2x4's, and the moisture from the ground cannot come in contact with the bottom-boards.

I think from all appearance these bees are coming through in No. 1 condition. Bees in this locality have to be packt well or they are "goners." They cannot stand the cold in single-walled hives, as the mercury gets to 30° below zero here sometimes.

The forepart of last season bees did very well, but the latter part was a failure. My crop was 2,500 pounds of comb honey. The extractor I don't use. I run my bees for comb honey entirely. I am not bothered with swarms. I find if I keep on plenty of supers, and raise the hive one inch or so from the bottom-boards, by placing small blocks under the corners of the hives, there won't be more than one colony in 10 to swarm.

Dr. C. C. Miller, on page 42, says he wants to put more supers on when the first one is ¾ or ⅞ full. Now I notice if I wait until the first supers get that full, almost invariably they will have queen-cells started, then out they go. Perhaps in all localities things don't work the same. I want the second super on before the first one is half full; after that the bees will stand a little more crowding. I don't want much honey capt in the super next to the brood-frames, for I notice the first day it is capt it will show travel-stain to a certain extent.

Another thing in the production of white honey is to keep the bottom-boards clean. Clean them every spring, of all burr-combs, bee-glue, old cappings, etc. To plane them is a good thing. If the bottom-boards are covered with dead bees, mold and filth, and the combs and frames are all daubed up, the apiarist will not get anything very fancy, no matter how white his honey would be. To get white honey we must keep things neat and right on our part, and the bees will do theirs.

I have a colony of bees that I call my comb-builders. I have known them to build about 860 square inches of comb in 24 hours. I tried an experiment last summer, and if it proves a success the coming season I shall report. It is on comb-building.

I will send a bee taken from the hive when the experiment was going on, with the segments of wax highly developt. I wish you would pass it around. Send it to Dr. Miller.

Mecosta Co., Mich., Feb. 8.

[Mr. Cole, we are sorry to say the bee you refer to never reacht our office.—Editor.]

CONVENTION PROCEEDINGS

Proceedings of the Colorado State Bee-Keepers' Convention.

REPORTED BY F. L. THOMPSON.

The 17th annual convention of the Colorado State Bee-Keepers' Association was held in Denver, Jan. 25 and 26, 1897.

Pres. Aikin being absent, the chair was occupied by Vice-Pres. W. L Porter.

The following paper was read by Mr. D. L. Tracy, of Jefferson County:

TALL VS. SQUARE SECTIONS.

When a change in any branch of business, article of machinery, or manner of living, is contemplated, there is a cause that leads to this desire for a change. If we go into any business firm, we find, if they are prosperous, *i. e.*, making a little more than their expenses, that there is no desire with them to change their manner of business. If we visit the mechanic beside his article of machinery, we find that no change is thought or talkt of unless an idea has been advanced that would make the machinery more perfect, therefore more valuable. This is the case generally in the business world.

Occasionally there is an exception to this rule. All business, all classes of life, are composed of individual members, and each individual has his individuality; and while 95 per cent. of these individuals may go about in their chosen vocation with a sort of sameness, yet the other 5 per cent. sit, as it were, upon a sort of an eccentric, and they balance or turn according to circumstances. Notoriety, originality, oddity, and *gain* are a few of the incentives that cause the eccentric to turn one way or the other.

I will ask the question, Is there a need of a change from the square to the long section? If so, what demands it, and what would be gained by a change? Would there be an increase in the amount of surplus honey (the question of all questions to the apiarist), and if so, how? What would cause the increase? Would a chunk of honey two inches square and eight inches long sell better in that shape than would the familiar 4x4 section? Or is it the idea to sell honey by the inch rather than by the pound, and thus save the necessity of buying a pair of scales? Or is it a scheme of some manufacturing supply house, directly or indirectly, to open a way that they may have an opportunity to remodel the hive super—in fact, all that is connected with the hive, and thus create a demand for new fixtures? I may lack in charity, but the last question is my belief what has caused the subject to be brought out in some of the bee-papers of the land. To try to make myself more plainly understood, please allow me a broader range than what the subject, "Tall vs. Square Sections," would seem to allow.

I have used some of nearly all of the different styles of frames for the inside—brood-chamber—of the hive, like many of the up-to-date bee-keepers who have tried to be practical, and have felt, when a new frame has been placed upon the market, that there must be some merit in that frame, and have laid in a supply for the next season's use, with the result that after one season they were cast in the rubbish-pile.

Any one who ever handled a comb and brood, be he the most ignorant "Novice," would know that a frame with a top-bar ⅜ of an inch thick would not bear the weight required in a frame for the Simplicity or Dovetailed hive, yet they were sent out by tens of thousands! They were made to help make the supply business pay. Many changes have been made in the brood-frame, and while I admit that some of these changes were for the better, yet in the main the frame of to-day is not as practical as the old V-shaped top-bar frame, invented by, I think, the Rev. Mr. Langstroth, years ago. Had this old frame been made with a thick—say ½-inch top-bar—then the V-shaped bar added, it would have been, to my way of thinking, the best top-bar ever made.

All along the skirmish line of the apiarist lay his experience in the shape of hives, supers, T-tins, separators and frames, while his dollars have gone to build up the supply dealer, and now a new hook, or perhaps *crook*, has come, and this is in the tall vs. square section. You will see what my idea of a change from the old common-sense section to a new dimension is. You have the right to say that as I have had experience with only the 4x4 section that I know nothing about the matter whatever. I will agree with you in this, but will add that there are a few things that a person with half horse-sense can stagger a good guess at.

If I were in the supply business, I presume that I might advocate the change, as it would necessitate the demand for a new style of super, a number of changes in the inside furniture of a hive, crates, etc. But as I try to produce a little surplus comb honey to sell, I shall not advocate a change in the shape of the section now used.

There is one point that I wish to speak of, and that is in regard to the handling of sections. The 4x4 section is as near perfection, it seems to me, as could be arranged, as far as the handling is concerned. It is about the right size and shape for the adult hand to hold while scraping off propolis and putting in shape for the crate; then it will stand upon its own foundation when set down. Contrast that with a 2x8 or a 3x5 section, and you will find that that section will stand "a-laying." Twenty-four of the sections of the style of to-day make a convenient and desirable sized crate of honey to be placed upon the market. I think that those who advocate the tall section must profess to be gods, and they wish to kill the bee-industry with that old chestnut, "Whom the gods wish to destroy, they first make mad."

My acquaintance with the members of the bee-fraternity has been such that I do not think that Moses could hold a candle to them in meekness, but, oh my! let them go to setting up, or setting down, 2x8 section comb honey! Well, I will not try to enlarge upon it, but I think if you were near, you could see considerable blue floating around that Moses, and it would not be ethereal blue, either.

D. L. Tracy.

Mrs. Booth—The 4¼x4¼ section is good enough for me.

Mr. Adams—I have concluded to stay with the present style. I can see no advantage in the change. I think the square section is just as beautiful.

Mr. Rhodes—There is something in the suggestion Mr. Tracy makes in regard to supply houses favoring changes There were difficulties in the change from the 2-pound section to the 1-pound.

Vice-Pres. Porter—I do not want to stand in the way of any progress in our industry, but I think the originator does not bring out any good reason for the change.

Mr. Sylvester—The only argument is in favor of the dealer.

Vice-Pres. Porter—The tall section is claimed to look a little handsomer. I think we should work more for a general standard in our supplies; but as it is now we have continual changes. I recommend a resolution to condemn this change.

Mrs. Booth then explained her way of serving honey at the table, in individual dishes, like those for butter.

Mr. Tracy—I favor a good, strong resolution.

The following resolution by Mr. Tracy was adopted:

Resolved, That the Colorado State Bee-Keepers' Association denounce the scheme of some of the supply houses of the land of changing the present style of the standard 4¼ section to any other style.

Mr. F. Rauchfuss—Speaking of changes, here is a sample of comb honey in a Ferguson section. As the Ferguson super is used in Utah, Mr. Dudley may be able to tell us something of how it is regarded.

Mr. Dudley (Secretary of the Utah Bee-Keepers' Association)—To some extent the Ferguson super is used in Utah, but I do not think it will be adopted to any great extent. The tall section has the advantage that you can put a greater surface in a super.

Mrs. Booth—I do not favor the Ferguson section.

Mr. Sylvester—The Ferguson super might be all right if one does not tier up.

Vice-Pres. Porter—There is a difference in the city markets. Some require glast sections, and others cartons, and different kinds of cases are in vogue in different places.

LAWS AGAINST AULTERATION.

In the afternoon session, the legislative committee, consisting of J. B. Adams, H. Rauchfuss and F. L. Thompson, made their report. The committee had lookt up the adulteration law. In their judgment, the statutes already in force were sufficient. Of these, an Act passed in 1887 is to be found in Mills' Annotated Statutes of Colorado, Vol. I, Secs. 12, 13 and 14; or in the Session reports of 1887, pages 16 and 17. These, in brief, define the sale of articles of food and drink mixt with substances injurious to health as a felony, to be punisht by hard labor in the penitentiary for not more than five years; the sale of adulterated articles of food and drink, without marking the same as such, as a misdemeanor, to be punisht by a fine of not more than $500, or by imprisonment in the county jail for not more than six months, or both; and the sale of imitations of articles of food and drink, without a statement to that effect on the label or otherwise, as a misdemeanor, to be punisht with a fine of not more than $500.

An Act past in 1893 is to be found in Mills' Annotated Statutes, Vol. 3, page 944 and following; or in the Session Report of 1893, pages 392, 393, and 394. This Act makes fraudulent adulteration of food or drink, for the purpose of sale, punishable by imprisonment in the county jail not more than one year, or a fine not exceeding $300, and the adulterated article is to be forfeited and destroyed; and it goes on to virtually repeat, in the main, but more in detail, the former Act in somewhat different language, extending it to medicine also. A general penalty clause near the end states that violation of any provision of any of the foregoing sections of this Act shall be punisht by a fine of not more than $50, or imprisonment in the county jail not exceeding three months. The last section makes it the duty of the district attorneys of the State to appear for the people and attend to the prosecution of all complaints under this Act in all the courts in their respective counties. The sections of this Act which most interest bee-keepers are as follows:

"No person shall mix, color, stain or powder any article of food, drink, or medicine, or any article which enters into the composition of food, drink, or medicine with any other ingredient or material, whether too injurious to health or not, for the purpose of gain or profit, or sell or offer the same for sale, or order or permit any other person to sell or offer for sale any article so mixt, colored, stained or powdered, unless the same be so manufactured, used or sold, or offered for sale under its true and appropriate name, and notice that the same is mixt or impure is markt, printed or stampt upon each package, roll, parcel or vessel, containing the same, so as to be and remain at all times readily visible, or unless the person purchasing the same is fully informed by the seller of the true name and ingredients (if other than such are known by the common name thereof,) of such article of food, drink or medicine at the time of making sale thereof, or offering to sell the same.

"No person shall mix any glucose or grape sugar with syrup, honey, or sugar intended for human food, or any oleomargarine, suine, beef fat, lard or any other foreign substance with any butter or cheese intended for human food, or shall mix any glucose or grape sugar or oleomargarine with any article of food, without distinctly marking, stamping or labeling the article or the package containing the same with the true and appropriate name of such article and the percentage in which glucose or grape sugar, oleomargarine or suine enter into its composition; nor shall any person sell or offer for sale, or order or permit to be sold or offered for sale, any such food into the composition of which glucose or grape sugar or oleomargarine or suine has entered, without at the same time informing the buyer of the fact, and the proportions in which such glucose or grape sugar or oleomargarine or suine has entered, without at the same time informing the buyer of the fact, and the proportions in which such glucose or grape sugar or oleomargarine or suine has entered into its composition."

(In the foregoing, the word "too" in the phrase "whether too injurious to health or not" may possibly be any error, since the statement is made that the Secretary of State did not consider himself at liberty to correct any errors of grammar, spelling, punctuation, etc. But the word "suine" is doubtless correct, and is a dissylable.)

The subject was thus discust, after the reading of the Acts:

Mr. Rhodes—This law is sufficient.

Mr. Tracy—How is it that a committee of dairymen are working for a law, when there is a law already?

Mrs. Booth—They want a different coloring specified, so that any one can tell a package as soon as he sees it.

Mr. Northrop—The dairymen want more money appropriated to put the law in force.

Mr. Booth—It is easy to pass laws. One dairy commissioner did no good. Another bought up some samples. But when you do get the samples you have to have the money to get them analyzed. He got a few analyzed, and a few persons were brought up and fined. The question is how to *apply* the law. There should be some provision for money enough to pay the chemist or the prosecution. Perhaps Eastern laws should be copied.

Vice-Pres. Porter—The Field and Farm has been talking about getting the Ohio Pure Food Law through.

Mr. Tracy—Is there any provision for money in our law?

Mr. Thompson—No.

Vice-Pres. Porter—The analysis should be done by some reliable authority.

Mr. Sylvester—I have noticed the disposition of city officials to avoid doing their duty. I have certain knoledge of a gambling case which the city attorney refused to prosecute. The assistant city attorney collected evidence and prosecuted, but was made to resign by the city attorney. The district attorney is as absolute as the Czar. He can quash any proceedings commenced in the lower courts. That is what the city attorney did, by means of a mandamus.

Mr. Rhodes—The difficulty is serious. But if we connect ourselves with the bee-keepers' protective union, they will back us. More than an individual representation is needed to be effective. The Union forces them to prosecute, whether they want to or not.

Mr. Tracy—The only way for us to do is to join the Union as individual members.

Vice-Pres. Porter—A committee was appointed some time ago to collect samples. Suppose we wait until they report before going on with the discussion.

The remainder of the report, on the Foul Brood amendments, was suspended until after the reading and discussion of a paper by Col. Whipple, of Arapahoe County.

[Continued next week.]

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

The Alsike Clover Leaflet consists of 2 pages, with illustrations, showing the value of Alsike clover, and telling how to grow it. This Leaflet is just the thing to hand to every farmer in your neighborhood. Send to the Bee Journal office for a quantity of them, and see that they are distributed where they will do the most good. Prices, postpaid, are as follows: 50 for 20 cents; 100 for 35 cents; or 200 for 60 cents.

Questions AND Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

"Highly Italianized Bees."

What are highly Italianized bees?" R. M. E.

ANSWER.—I don't know. If you take a piece of board and cut it exactly square, I suppose that piece of board might be said to be squared. Now what would you mean if you should say it was highly squared? If you answer that question, I'll answer the other. If you have a colony of bees that is not of Italian stock, and give to it a pure Italian queen, then that colony is Italianized. If the queen isn't Italian, then the colony isn't Italianized, and if she is, then the colony can't be any more highly Italianized. Whoever used the term perhaps had in mind bees of high grade. For in bees of mixt blood there may be all degrees, from pure black to pure Italian, and the greater the predominance of Italian blood the higher the grade.

Feeding a Substitute for Pollen in the Hive.

Can bees be fed a substitute for pollen inside the hive? I have often heard men say they had, or had known others to do so—generally using corn-bread soakt in syrup or honey. I have tried it, but I think the bees only cut the bread away so as to get the sweet out of it. B.

ANSWER.—Yes, you can give bees a substitute for pollen in the hive, but hardly in the shape of corn-bread. In England I think pea-meal is mixt with syrup or honey, and if you can't readily get pea-meal you can use rye or wheat flour in honey or sugar syrup. Don't use enough flour to thicken the honey. Most bee-keepers prefer to feed the substitute for pollen outside, in the shape of ground corn and oats, ground corn, or other ground grain unbolted. Perhaps I ought to have said most bee-keepers who give artificial pollen, for the great majority probably never meddle with the matter at all, and generally bees have all the pollen they need.

A Quintet of Questions.

1. Will wide frames, the short way in the super, and brood-frames the long way in the body of the standard hive, work well?

2. Do *you* practice clipping your queen's wings?

3. I noticed, in an observatory hive, bees going into the cells head first, and remaining there hours. What were they doing?

4. When the queen moves over the combs, the workers give her a wide berth. Is this through fear or respect? When one does not discover the queen until she is in immediate proximity, it is really amusing to see the little thing "git up and git," as tho she had committed some grave indiscretion.

5. I have an acre lot that I wish to set in clover, as much for bee-pasturage as for hay—in fact, equally for both. What kind would you advise me to use? We have no clover in this part of the country. It is claimed by some that our long, hot summers will kill out clover. I do not believe it, and will try it. If not from you, where will I get the fullest information about the subject, that is, the amount of seed to the acre, when to sow, how, etc.? ARKANSAS.

ANSWERS.—1. Yes, all right. But in that case you must be careful to have your hive level in both directions, from front to rear, and from side to side. I've seen it claimed in foreign bee-journals that when this arrangement is used the queen will not go up into the super. Just why it is thought so is not explained. It's a rare thing for a queen to go up into one of my supers when sections and frames run the same way, and I don't see why it should be different when sections cross brood-frames.

2. Yes, indeed; I wouldn't leave my queens unclipt for a good bit of money. Saves many a swarm.

3. I don't know of anything they could be doing for that length of time, unless resting. Wish you had noticed whether the cells were empty after the bees came out.

4. I've seen a queen run from workers as if through fear, but I never saw a worker that appeared to be afraid of a queen. A queen stopping for any length of time in one spot seems to have a circle of admirers gather around her, and, as she moves about, each worker seems inclined to turn its head toward her as if from respect. Often, however, she brushes by some of the workers that don't seem to notice her at all, evidently not seeing her. I don't believe I ever saw a case where the bees seemed to try to get away from her, but I have often seen them climb all over her, as if fondling her.

5. Taking into consideration the honey to be obtained, I believe I'd try sweet clover. It will give a longer yield than perhaps any other clover, and is worth trying for hay. Back numbers of the American Bee Journal give full information as to sowing, etc. On page 754, for Nov. 26, 1896, you will see Mr. Stolley says: "I have found that the driest seasons, and when nearly all other crops fail, sweet clover is at its best;" so your hot summers may be just the thing for it.

Taxing Bees in Iowa.

Is there any law on taxing bees? Are they taxable, or not? If they are, why are they? If they are not, why are they not? They are taxt here, $1.00 a colony. IOWA.

ANSWER.—I don't know why bees shouldn't be taxt just as any other live stock, but as a matter of fact I think they are not taxt in Iowa. At any rate, I have an impression that a peculiar wording of the law in that State made them non-taxable. Possibly the law has been changed, for my information, if I remember correctly, dates back several years. It ought not to be a difficult thing to find a copy of the law near by, and that would settle it.

Getting Sweet Clover Seed to Grow.

Last spring I had nicely prepared about one acre of ground and sowed it to sweet clover, and I don't think there were two dozen plants that came up on the whole piece, and that all died out before fall; but I got the finest piece of ragweed you ever saw.

After sowing the clover in the spring, we had no rain for five or six weeks, and this is why I thought it came up no better. But what caused that that did come to die out? Some of it got to be from 5 to 10 inches high. Do you think if I would go over this ground in the spring with a harrow two or three times, then sow the seed, going over it again with harrow or brush, that this would do, as the ground has not become very hard? or should I plow it over again? I think there is no sweet clover in New Hampshire. N. H.

ANSWER.—I don't know for certain what the trouble was. From some experience of my own, I'm inclined to think the trouble was that you treated the sweet clover too well. If you had simply thrown the seed on the hard ground very early in the spring, and then when the ground was quite muddy had turned in a lot of horses or cattle to tramp all over it, you might have had a good stand. And it is just possible that the few plants that came up were killed because the ground was too soft. If your ground is mellow, the seed should be covered deep. I don't know how deep, but no surface scratching will do as for other clover. Light covering will do if the ground is hard, and it seems almost impossible to have ground so hard that sweet clover will not grow in it. If I were you, I believe I'd try part of that piece without plowing, sowing the seed as early as possible, then scratching in the seed, or still better, having it trodden in by live stock. The other part I'd make mellow, sow, then turn under with a plow or cultivator. Perhaps that on the hard ground will be the surest catch, but the other may make the best growth. Be sure to report if you get a good catch, no matter which way you sow, for there seems to be a good deal of trouble about getting the seed to grow, altho when left to itself there is no trouble.

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

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Editorial Comments.

"Oh! for a Thousand Tongues" was probably first said by a man who liked honey.

◆

Sample Copies of the Bee Journal for last week were mailed to the extent of several thousand, and it may be that some who are already regular subscribers received an extra copy. If so, we hope such will kindly hand it to a neighbor bee-keeper who is not yet among our readers, and try to get him to subscribe at once under one of the special offers made therein. We will appreciate it very much if those receiving extra copies at any time will do this.

◆

Good Advice to Beginners.—As Mr. G. M. Doolittle has been all through bee-keeping, his advice can be relied upon almost invariably. Here is a chunk of wisdom he hands out to beginners who ask about starting in bee-keeping:

> "I am about to commence in bee-keeping. How many colonies would it be best for me to start with?"
>
> The above is the substance of many letters which I receive. I would advise a beginner to commence with a small number of colonies—say from two to five; as, however well he may study and understand the theory of bee-keeping, he will find that practical experience is necessary, and the knowledge he will obtain in handling a small number of colonies and multiplying them, will give him the requisite experience to manage them when his colonies become numerous. If he makes blunders with a few, before he becomes expert, the loss will not be so great; when if he should commit the same blunders with a great number, it might prove too costly a tuition fee to pay for the experience acquired, and turn him from the pursuit in disgust.—Progressive Bee-Keeper.

◆

Name of the New Union.—On page 178, Mr. Abbott suggests that the name of the New Union be changed to "United States Bee-Keepers' *Alliance*." That is a good name, but we have been thinking that if ever it is considered best to make any change, "United States Bee-Keepers' *League*" would be about the right thing. We talkt the "League" name over with Dr. Miller when on our way back from the recent Illinois convention, and he approved of it, if any change were to be made. Perhaps he would prefer, or like just as well, the name "Alliance." But like any other member, the Doctor is only *one*, and of course the majority would decide in a case of this kind.

But why not let the word "Union" stand? No society has a patent or copyright on that? Are there not various kinds of unions in the land? Surely, any society has a perfect right to use the word if so it pleases. It is the same way with the word "Association." Nearly every State bee-keepers' organization uses this word in its name, and no fault is found, we believe, and no conflict ever arises. Neither need there be any trouble because there are two "Unions" among bee-keepers.

Take it all in all, we believe it is just as well to let the name stand as it is for the present—at least nothing can be done about it until the election next December, we think. The matter could be considered at the Buffalo meeting, and a recommendation be made there, which could be voted on in December, as stated.

In the meantime, let every one who has not already done so, send a dollar for membership dues, to the Secretary, Dr. A. B. Mason, Sta. B, Toledo, Ohio. He's just aching to have a large membership and a full treasury.

In a very short time now we hope to be able to announce that the United States Bee-Keepers' Union is ready for business, with a hustling General Manager and an efficient Board of Directors.

◆

The Subject of Drawn Combs seems now to be pretty much in evidence in various bee-papers, and their value doesn't seem to be questioned any. Here is what Editor Hutchinson, in the Review, says his experience has been:

> I have for years saved the half-finisht sections from the previous year, and used them in the spring to give the bees a start in the supers. I have never had enough to give a case to each colony; if I had enough to give half of the colonies these half-drawn combs I did well. In this way I have had ample opportunity to note the value of drawn combs in this particular place.
>
> I have this to say: As a rule, a colony given a case of drawn combs will fill those combs with honey, and have them sealed and ready to come off, and will have commenced work in the case of sections furnisht with foundation that has been placed beneath the case of drawn combs, by the time a similar colony will have commenced work in a case of sections simply furnisht with foundation.
>
> In my experience, a case of drawn combs in the spring is as valuable as a case of finisht sections, as it enables me to get one more case of honey from that colony, nay, more—the giving of these combs relieves the pressure upon the brood-nest, and results in the brood-combs being more perfectly filled with brood at a time when more brood means more workers in the basswood harvest.

◆

A Trans-Mississippi Exposition is being organized to take place in Omaha, Nebr., from June 1 to Nov. 1, 1898. It promises to rival the famous Columbian Exposition held in Chicago in 1893. The total stock subscriptions already amount to about $500,000. Congress has appropriated $200,000 to defray the expenses of a national exhibit. The Government will erect a great building for its exhibit. The State of Nebraska will appropriate $200,000, while Omaha and Douglas county will vote bonds in the sum of $200,000 in aid of the Exposition. Iowa has appropriated $10,000, and will increase the amount later. Appropriation bills are now pending in most of the legislatures in States and Territories west of the Mississippi river.

The Exposition site in the northern suburbs of Omaha embraces ample area, is most accessible, and in every way adapted for the purpose. The Board of Managers past a resolution providing for the following nine buildings, which will constitute the nucleus around which the smaller buildings will be assembled:

Building No. 1—Agriculture, Horticulture and Forestry; No. 2—Mines and Mining; No. 3—Manufacturers and Liberal Arts; No. 4—Fine Arts; No. 5—Electricity and Machinery; No. 6—Auditorium; No. 7—The Nebraska Building; No. 8—Grand Army of the Republic Building; No. 9—The Silver Palace.

In the discussion regarding these buildings the idea was advanced that the auditorium building should be made a model of the world-famed tabernacle in Salt Lake City, a building renowned as having the most perfect acoustic properties of any auditorium in the world. The material to be used in the construction of the buildings has not been decided upon by the Exposition authorities, but it is more than likely that the temporary buildings will be built in the same way as the World's Fair buildings, of staff, a form of stucco. The plan of the Exposition authorities, however, contemplates one or more permanent buildings. It is desired to have four of the buildings built in a permanent and substantial manner, if the arrangements for so doing can be made, but it is certain that some of the buildings will be of a permanent character. The Government building will prebably be one of these, the purpose of the Exposition promoters being to purchase this building after the Exposition is over. It is also the purpose to have the auditorium constructed of permanent material.

Applications for space at the Exposition continue to pour into the department of exhibits, and a very flattering showing has been made in a number of different lines. The number of applicants for space is already large, and growing daily. Manager E. E. Bruce, of the Department of Exhibits, announces special prizes, consisting of six gold trophies, six silver cups, and six gold medals, to competitors in each of the following classes: For the best display of an irrigating system in operation; for the best electric light service in display; for the best display illustrating the process of the manufacture of beet-root sugar; for the best display of manufacturing plant in operation; as well as two more lots of similar prizes for other high class exhibits to be named hereafter.

Manager A. L. Reed, of the Department of Concessions and Privileges, has on file a large number of applications. The latest is an application for 50,000 square feet for a Chinese exhibit. There will be no lack of novelties at the Exposition of 1898. A Woman's Department has been organized.

For further information, address the Trans-Mississippi Exposition, Omaha, Nebr.

◆

Back Numbers Since Jan. 1, at least for a time yet, we can furnish to all new subscribers who may desire their subscription to begin at that date. It is much better to have a *complete* volume of the Bee Journal. The first three months' numbers for 1897 we will mail for 20 cents, as long as they last.

◆

The "Divider"—A New Device.—Mr. S. T. Pettit, of Canada, in Gleanings for Jan. 15, mentions what he calls a "divider." He has kindly sent us one of them, which he describes as follows in Gleanings:

> Often to our sorrow we find that the outside of the outside sections in a super, though fairly well filled, are, at least, a good many of them, but poorly capt. This has often been a sore trial—so many poorly-finisht sections after looking so repeatedly and waiting so long.
>
> It always seemed to me that if more room could be furnisht, more bees could be present, and thus a more uniform and the necessary heat kept up day and night at the outside of the outside sections; then the bees would feel and act like those farther inside, and would go and finish up the job "in a workmanlike manner." But the difficulty would always come up that, if more space was given, it would only be filled with honey in poor shape.
>
> At length I conceived the idea of giving two bee-spaces by putting in a divider to divide the extra space into two bee-spaces. Following up the idea I set myself at experimenting to test what seemed to me so full of promise. After experimenting with a good many different devices with more or less success, I tried the one which is here described, and it has given very good satisfaction indeed.
>
> It is simply as follows: A piece of basswood or pine, about a sixth of an inch thick, and just the width and length of a separator, is bored as full of 5/16-inch holes as the wood will stand and not split to pieces, and five ¼ inch strips are nailed across it. These are turned outside against the wall of the super, thus forming two bee-spaces instead of one. The bees cluster on the sides of the divider, and pass freely both ways through the holes, and the work goes right along in good shape.
>
> I tried a few with ⅜-inch holes, with satisfactory results.
>
> Nothing is gained by giving more than two bee-spaces.
>
> Dividers made of slats ¼ inch apart leave the sections ridgy, reminding one of a miniature washboard, and, besides that, some brace-combs appear between the sections and divider.
>
> I coined the word "divider," or, rather, applied it to the new device. I hope it will do.

The Weekly Budget.

Hon. Eugene Secor, of Winnebago Co., Iowa, was elected President of the local county Farmers' Institute at its last meeting. A good choice. Mr. Secor never disappoints his friends, but more often surprises them in a most pleasing way, as he did at the Lincoln convention last October.

Dr. N. T. Millard, of Green Lake Co., Wis., wrote Feb. 25, when renewing his subscription: "I am delighted with the way you handle swindlers and adulterators."

Mr. Emil J. Baxter, of Hancock Co., Ill., son-in-law of Mr. Chas. Dadant, reported, Mar. 2, that he had just sold the last of his 1896 crop of honey. He had about 10,000 pounds, and has not had an entire failure in 18 years, altho two or three seasons he had but very little honey. He keeps from 250 to 300 colonies.

Mr. Wm. Russell, of Hennepin Co., Minn., wrote us March 6: "The Minnesota Foul Brood Bill has been 'indefinitely postponed,' no one having appeared before the Committee on Dairy and Food, to which it was referred. Comment would be superfluous."

The Leahy Manufactory Co., publishers of the Progressive Bee-Keeper, are written up in great style by the poetical Will Ward Mitchell, in the March number of their paper. Pictures of Messrs. R. B. Leahy, E. B. Gladish and J. W. Ennis—the principal members of the company—adorn the congratulatory article. Truly, Missouri, like her sister States, has some wonderful people. And we are glad to know that at least some of them are making a success in life.

Mr. C. S. French, of Todd Co., Minn., writes as follows: "Of all of the papers that I take, I enjoy reading the American Bee Journal the best. Long may it continue to prosper."

Mr. B. S. K. Bennett, editor and publisher of the Pacific Bee Journal, in the March number of his paper utters this sentence, which doubtless is his own experience as publisher: "A bee-paper is, we feel, a good place to burn money." Mr. Bennett might do as another paper in the West did recently, viz.: Publish a form of bequest, so that its readers might remember it when making their wills! But perhaps most folks would prefer "to burn" their own money, instead of handing it over to a bee-editor to cremate after they have departed this life.

Dr. Chas. H. Carter, of Los Angeles Co., Cal., wrote us Feb. 27: "Bees are hard at work, and there is promise of a good honey crop the coming season."

Mr. Gustave Gross, of Jefferson Co., Wis., made us a short office visit week before last, on his way home from a trip to Switzerland, his native land. He had not been there for 32 years. He had seven brothers and sisters, and found them all still living. He reports a fine time, and will probably write something of his trip for the Bee Journal. We might give here some of the things he told us about bee-keeping in Switzerland, but we prefer to let Mr. Gross tell them himself. We had a very pleasant visit with him. He is a bee-keeper of 150 colonies, and expects to double his number this year. He lives in the region where the famous Grimm bee-keepers used to live, but he says that the basswood has been cut down to such an extent there that he has had to move his bees to another location.

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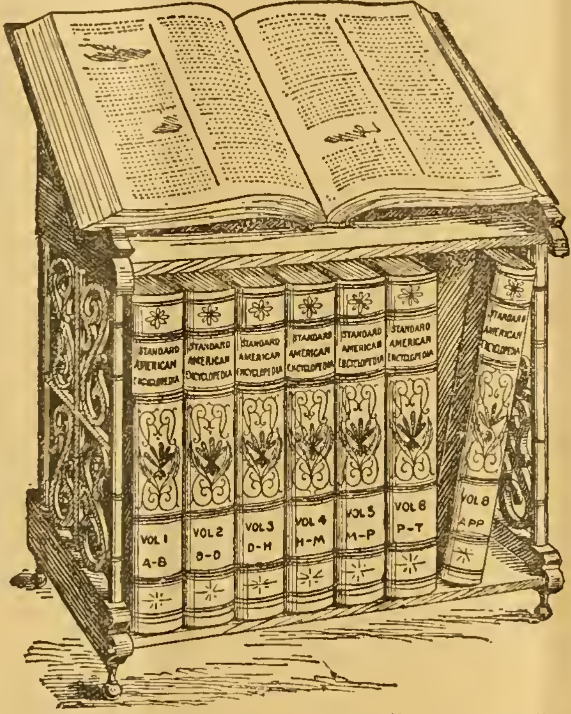

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THE ENCYCLOPEDIA PUBLISHING CO., 156 FIFTH AVENUE, NEW YORK, N. Y.

General Items.

Wintering Nicely.

Bees are wintering nicely so far this winter. Wm. Craig.
Saginaw Co., Mich., March 15.

Rolling in the Pollen.

The American Bee Journal is a welcome visitor to my home every Monday morning. I have 90 colonies of bees, and they are rolling in the pollen from wild flowers and fruit-blooms. B. P. Shirk.
Kings Co., Cal., March 5.

Last Year a Failure.

Last year was a failure here with bees and everything else. I put into winter quarters 16 colonies, and have lost one to date. I winter them on the summer stands with chaff cushions. J. C. Bogert.
Montour Co., Pa., March 10.

Bees Wintered Well.

The bees have wintered well, and have plenty of honey to last until they can board themselves. The white clover looks better than I have seen it for years.

I couldn't get along with my bees at all without the "Old Reliable." S. T. Applegate.
Lewis Co., Ky., March 10.

Bees in Splendid Condition.

My 120 colonies of bees are all in splendid condition on the summer stands, packt with shavings. The prospect is good for a good crop of white clover this season. We have had abundance of rain since last July, and are looking for a good crop this time. Geo. W. Riker.
Lucas Co., Iowa, March 11.

Bees All Right.

I find my bees all right so far as I can tell, except a colony that starved to death in the upper story of the two hives put together.

I don't see why any bee-keeper will do without the Bee Journal if he is interested in the business. I read it with much interest. My son-in-law says it is worth ten dollars to him. Noah Miller.
Iowa Co., Iowa, March 12.

Narrow Sections.

I see a good deal in the Bee Journal about honey adulteration. Now what difference is there between that and shipping a lot of 1½-inch sections into our market here to sell for 17 cents, when we all use 1¾ sections about here? It seems to me one is about as bad as the other. Of course, everybody can use what he likes, but it looks as if we had better have a standard section, in thickness as well as size.
Litchfield Co., Conn. S. C. Hills.

Last Season—Bees and Grapes.

The past season was one of fair promise to bee-keepers in this section. There was abundance of fruit-bloom, warm weather, plenty of sunshine, and frequent showers. The bees, strong in numbers, were at work in the supers, and their merry hum seemed to restore confidence in our chosen pursuit. But, alas! how like the political buzzing—all promise and no fulfillment—a make-believe, a delusion, and we can only record another failure in the honey crop.

"Do bees destroy sound grapes?" One would not have wisht for a more favorable time to test this matter, than we had dur-

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ing the grape season of last year. There was no honey coming in, the bees were short of stores, and searching for sweets in every direction. They did not bother the grapes, however, until the chidren started them by plucking berries from the bunches, then even the hulls scattered about the arbor were a mass of bees.

With some fear as to what the result might be, I crusht a part of the berries on quite a number of bunches, and they were soon covered with bees, piling over each other in their haste to lick up the juices, but, to my surprise, I found the grapes with torn skins the only ones destroyed. Perhaps they did not stop to reason, or it might have been worse, for I have clogged the hive-entrance with grapes, and they went through them without my assistance.

It is said that bee-keepers want their bees proven innocent of this charge, and when answering the query are not always actuated by an honest desire to make plain the truth. So my bit of experience along this line can be taken for what it is worth.

A. B. Baird.

Fayette Co., Pa., Jan. 28.

Results of the Past Season, Etc.

From 14 colonies I took 100 gallons of extracted honey and 500 pounds of comb honey, besides increasing to 30 colonies. The Bee Journal is growing better every week. I am with it, tooth and nail, to down all the frauds and adulterators. There is one firm in St. Joseph, Mo., whose agent peddles his glucose stuff all over this county—three little glasses for 25 cents, with a little honey-comb in the top. They buy these glucose glasses in St. Joseph at $1.10 per hundred pounds.

Ray Co., Mo. March 1. C. F. Bowen.

Hands Poisoned by Propolis.

On page 778 (1896), R. K. asks the question, "Does the propolis we clean off the sections poison a person's skin." I am quite sure it does, for I was poisoned last fall. When cleaning sections some of the propolis settled under my wrapper sleeve, and before I realized it my skin began to raise a watery blister; it smarted and itcht almost the same as poison-ivy, and has had the same effect on other occasions. Bee-stings poison me severely. I have to be protected when at work in the bee-yard.

Rochester, N. Y. J. H. B.

Getting Bees from a Bee-Tree.

On page 54, E. M. L. wishes to know how to get bees from a bee-tree. If I were to cut that bee-tree, I would provide myself with $\frac{1}{2}$ yard mosquito-bar, and about 50 sticks $9\frac{3}{4}$ inches in length, if frames are $9\frac{1}{2}$, so they can be tight top and bottom, to tie with fine wire. String is offensive to the bees. Then I would want one board as big as the frames.

About the first of May I would do it, as this is the time of year you can't very well destroy a colony of bees—you may kill the queen, and nearly all the bees, and yet have a big colony in the fall.

When you get to the tree, see which way it should fall, so the combs will not all smash up. You can vary the falling of the tree a little. Have the place clear, no logs for it to fall on. When cutting it, when it starts to go, don't chop any more.

When the tree is down, take your time and put that $\frac{1}{2}$ yard of mosquito-bar over your hat, and tie a string over the mosquito-bar, so the bees can't get at your face. Tie a string around the sleeve at each wrist, so the bees can't run up. Keep your hands bare.

Now move up to the hole in the tree everything that you brought. Cut in, or off, the tree around and below the bees, and if you can split it in halves all the better, if not, split till you can get at the honey. Give that friend all the honey you can, but be sure that you don't give him any young bees, as they are not good to eat, and are very good in your business.

Now lay down the board and get the sticks, which should be about as big around as lead pencils. Lay on the boards as many of the sticks as is necessary to hold the comb in place, and lay one frame on the sticks, then fill the frame with comb that has brood in it. Cut out as much honey as possible, as it is too heavy. Use everything that has brood in, capt or uncapt.

When you get the frame full, take the wire and tie the tops and bottoms of the sticks together. Take the board and frame, turn it edgewise, hold the frame up, let the board down, and set the frame in the hive.

Fill as many frames as you can, and set the hive right where you got the honey out, and get in as many bees as you can. If you can't get them all in, let them stand until night, and when they get all cleaned up, and themselves cleaned off, they will go in, when you can fasten the frames so they will not shake. Fasten up the hive, nail down the cover, take a piece of the mosquito-bar, and two slats, and tack over the entrance so the bees can get plenty of air.

Cut the tree in the forenoon. A man who is not well informed on bees should not cut it when bees don't get plenty of honey in the fields, as there may be robbing.

Peter Steinebach.

Clark Co., Wis.

Working on the Willows.

I have 8 colonies in hives $17\frac{1}{2}$x12x12, with 9 standing frames, all redwood. The hive bodies are dovetailed, so that when put together and not nailed they will bear up one's weight cornerwise, and will not give a hair. The entrances are 3x$\frac{3}{8}$; no robbing, I assure you, although some full-length entrance hives near here are robbing all the time. I have a $1\frac{1}{2}$-inch hole bored in the bottom-board near the back, and a 1-inch hole near the top, screened, for ventilation. The bees have been working strong for about a month on willow, but I think it is mostly for pollen.

One house near here has 7 colonies in it, that I intend taking out, besides several others. Fruit-bloom is a good, early crop here.

R. H. Yearnshaw.

Sacramento Co., Cal., Feb. 28.

High Water Interferes.

Spring breeding in this (Vanderburgh) county has been seriously handicapt by heavy rains, every day, thus preventing bees from gathering pollen, and compelling us to resort to feeding bran for pollen in covered places, sheltered from the winds, in order to stimulate the colonies and get the working force strong enough in time to gather the anticipated heavy flow from white clover. The backwaters of the Ohio river threatened to destroy my entire apiary, as the hives were only 2 or 3 feet above the water level, the water rising so rapidly on the night of Feb. 28, that the next morning we found our cows lying in a foot of water. This overflow always insures us a heavy crop of fine honey from the "dry-weather honey-vine" and fall flowers.

J. C. Wallenmeyer.

Vanderburgh Co., Ind., March 12.

Apis Dorsata Again.

I feel very anxious about that giant bee of India—Apis dorsata. For my part, I would like to have them tried in the United States, and as it is too big an undertaking for any individual, how could they better be brought than by the Government? And it seems to me that the bee-keeping fraternity should have a sole voice in the matter of who shall be procured to do the work of getting them safely here. Just why the Lincoln meeting so denounced this proposed undertaking I do not know. Surely it is not because Frank Benton has apparently not acted rightly toward the interests of bee-keepers. This being true, would be

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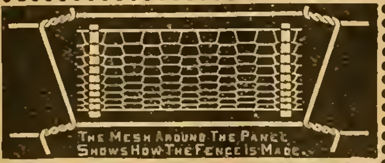
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sufficient to denounce him, and to appoint another more suitable to bee-men, for it is for the interest of such that the enterprise is to be undertaken.

Believing that the above is not true, I will proceed over the ground: In the first place, if these bees could reach the nectar in red clover, a large part of the United States would be a paradise for bee-men. I believe that no one could estimate the increast amount of honey that would be gathered by such a strain of bees. Again, if they could not reach nectar so deep as that in red clover, I see no reason why we might be benefited, for they are not accustomed to living in hives, and their habits will have to be somewhat changed. We would have to teach them to build more combs and not so thick through. Perhaps this could be done. But if they can't reach deeper into the tubes of flowers, we don't want them. As for their becoming a nuisance, as the English sparrow, surely that cannot be. Their habits are to build underneath the larger limbs of trees, or under ledges of rocks; would not our Northern climate kill them? or if they are going to survive as the fittest, can't we receive them as such? Perhaps they won't work in a dark hive. Well, then we would have to make a hive suitable, and a super just as much so. Can a sample of those bees be had? To be sure, they would be dead, but one could examine their tongues and compare them with the Italians.

FRANK COVERDALE.
Clinton Co., Iowa.

* * *

A Young Bee-Keeper's Good Report.

I have read in the Bee Journal that the editor wanted young bee-keepers to write, so I thought I would let you know how I and my bees are getting along.

I started in with one colony last spring, from which I got two swarms, and they gave me 100 pounds of comb honey and 45 pounds of extracted. I sold all my comb honey for 12 and 12½ cents a pound, and I got 9 cents a pound for my extracted honey.

I have all black bees, but they are not as bad as I read of in the Bee Journal. I can go among them without veil, gloves or hat; they will not sting me.

Well, I must not forget to tell you how they swarmed. One day mine swarmed out, but they went back. Two of my papa's swarmed out and went right in with mine, so the hive was full inside and outside. Papa scraped about half of them off, and put them into another hive. And the next mine swarmed out again. I must say I had a big swarm. And the second time they swarmed I had good luck; just when they settled, one of papa's swarmed out, and they doubled up, so I had another big colony! We have 32 colonies together, and have them all down cellar; they are wintering well. We did not lose any yet. I have three of the strongest colonies that we have. I am 12 years old.

HARRY SCHILLING.
Washington Co., Minn., March 9.

* * *

"Fishbone" Honey-Production.

Referring to the letter by Mr. La Mont, on page 124, and the editor's comment thereon, I wish to say that in my opinion there is a grain of good sense in Mr. La-Mont's suggestion as to the use of full sheets of foundation in sections, especially unless very thin surplus foundation is used. And, further, I think if the editor will test that matter in cutting and eating honey from sections with inch starters, he will find that the "fishbone" is not all in the "vivid imagination." With much of the foundation used, he will notice a markt difference in the quantity and density of the wax in the center, between that at the top (the starter) and at that lower down put in by the bees. Please try it a few times. Cut a section of honey down through the middle, and in most cases the "fishbone" will show for itself.

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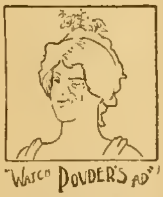

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Up till the middle of April at these prices:
Untested, 75c.; Tested, $1.25.

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Yell, O Yell, O'YELLOWZONES
Yellowzones for **PAIN** and **FEVER.**

FEED YOUR BEES
WITH BASWOOD. PROTECT THEM WITH EVERGRENS.
100, 2 to 5 feet, $10. 100 Baswood Seedlings, $1. Delivered free. Other sizes just as cheap. 50 $1.00 Bargains by mail. Millions to select from. Also Fruit Trees, Small Fruits, Vines, etc. Liberal cash commissions for clubs. Illustrated catalogue free. Good local Salesmen wanted. Address
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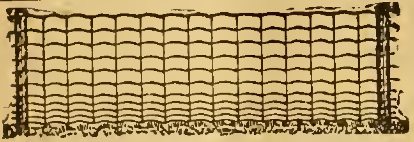

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We want animals to show off our fence, persistent fighters for "liberty," whose war cry shall be "up and at 'em" again. We bought a Jersey bull, "highly recommended" for the position, but two rounds satisfied him, and neither dogs or red rags could induce him to give the Page Fence another trial.
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40 acres of land suitable for the growing of oranges, lemons or olives; situated in San Diego Co., Calif., with a well-equipt apiary of 120 colonies of bees in good condition; 3-room house, with good water. Apiary produced over five tons of fine comb honey from 90 colonies of bees in 1895. Price, $2,000.
Address, **Dr. P. J. PARKER,**
11A3t 955 5th St., SAN DIEGO, CALIF.

Cockerels A Choice Lot of thoro'bred S. C. Brown Leghorns, $1.25 each. Eggs from same breed in season $1.25 for 15. Also **PLANTS**—Strawberry, Red and Black Cap Raspberry.
Will stuff and mount birds and animals to order. Price for small birds and animals 60 cts., and upward according to size.
Mrs. L. C. AXTELL,
7Atf ROSEVILLE, Warren Co., ILL.

from different makers. I have purchast of the Dadants that which came out almost, or quite, as tender and delicate as the natural comb. From other sources I have sometimes procured and used that which when cut, upon the table, was strongly suggestive of India rubber, or leather, in toughness or density. Still, it is true, as the editor remarks, concerning adulteration, that "comb honey can take care of itself."

It seems evident that honey-producing is steadily and surely growing less profitable as a business than it has been in the past. In most localities the prices quoted by dealers in the larger markets cut figures. The producers of comb honey seldom realize much more than half the advertised market rates (net). Extracted honey (pure) is very low, while adulteration is spoiling the demand for real honey. For some years there has been a sort of "boom" in honey-production, but it will soon be alongside of celery and sugar beets, which are fast becoming little, if any, better than turnips or 10-cent potatoes, and other garden and farm products under "gold standard" money measure. ALBERT BAXTER.

Muskegon Co., Mich., Feb. 26.

Convention Notices.

Texas.—The next annual meeting of the Texas State Bee-Keepers' Association will be held at Greenville, Wednesday and Thursday, April 7 and 8, 1897. All are cordially invited to attend.

Utah.—The Utah State Bee-Keepers' Association will hold its semi-annual meeting in the City and County Building, Salt Lake City, April 5, 1897, at 10 a.m. All are invited to come and bring your friends. A full program in the interest of the industry will be presented, among other subjects to be considered being the best method of marketing our products, and how to best protect the bees from foul brood and other diseases. In union is strength, and by industry we thrive. The Association needs your aid: then let all do their full duty, for their own interest and for mutual benefit and self-preservation.

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with a machine that will hatch every egg that can be hatched.
The New Saumenig Hatcher.
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Italian Bees and Queens, and Root's Bee-Keepers' Supplies. Address,
OTTO KLEINOW,
12A2t 122 Military Ave., DETROIT, MICH.
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FOR SALE At Beeville, Tex.—200 Colonies of first-class Italian Bees. $600 cash, to close out. Address,
10A4 **S. A. LEEDS, Avery Island, La.**

Bee-Keepers' Photograph.—We have now on hand a limited number of excellent photographs of prominent bee-keepers—a number of pictures on one card. The likeness of 49 of them are shown on one of the photographs, and 121 on the other. We will send them, postpaid, for 30 cts. a card, mailing from the 121 kind first; then after they are all gone, we will send the 49 kind. So those who order first will get the most "faces" for their money. Send orders to the Bee Journal office.

I ARISE
TO SAY to the readers of the BEE JOURNAL that **DOOLITTLE** has concluded to sell —BEES and QUEENS— in their season, during 1897, at the following prices:

One Colony of Italians on 9 Gallup frames, in light shipping-box	$6 00
Five Colonies.....	25 00
Ten Colonies......	45 00
1 untested queen,	1 00
6 " queens	5 50
12 " "	10 00
1 tested Queen...	$1 50
3 " Queens.	3 50
1 select tested queen	2 00
3 " " Queens	4 00
Select tested queen, previous season's rearing..	4 00
Extra Selected for breeding, THE VERY BEST..	5 00

About a Pound of BEES in a Two-frame Nucleus, with any Queen, $2.00 extra.
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☞ Circular free, giving full particulars regarding the Bees and each class of Queens.
Address
G. M. DOOLITTLE,
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For Sale, Choice Italian Bees.
Full Colonies at $5.00; Nuclei, $1 per Frame.
—Queens in Their Season.—
Also a Full Stock of the
B. Taylor Handy BEE-KEEPERS' SUPPLIES.
Send for Catalog, to—
F. A. CROWELL, Granger, Minn.
10E4t Please mention the Bee Journal.

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On all Kinds of Supplies
During March.
☞ Orders amounting to $5 or more will be delivered f. o. b. cars Springfield, Ills.
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10A13t Mention the Am. Bee Journal.
Mention the American Bee Journal.

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J. M. Jenkins, Wetumpka, Ala.
Mention the American Bee Journal.

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Or in Exchange for
Foundation—Sections—Hives or any Other Supplies.
Working Wax into Foundation for CASH A Specialty.
☞ Write for Catalog and Price-List, with Samples of Foundation and Sections.
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TO BE HUNG !
OUR SHINGLE is now hung out, notifying the public that we are again **ready to ship Queens.** Having greatly enlarged our facilities, can fill orders **by return mail.**
Golden Beauties, 3 Band Italians
Also Silver-Gray Carniolan.
Warranted Queen, 50c.; Tested, 75c. Make Money Orders payable at Caldwell, Tex. Send for Catalog of **Bee-Keepers' Supplies.**
Address, C. B. BANKSTON,
11Atf CHRIESMAN, Burleson Co., TEX.
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HONEY and BEESWAX

MARKET QUOTATIONS.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed: both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

Chicago, Ill., Mar. 19.—Fancy white, 11@12c.; No. 1, 10@11c.; fancy amber, 9c.; No. 1, 7c.; fancy dark, 8c.; No. 1, 7c. Extracted, white, 5@7c.; amber, 5@6c.; dark, 4½c. Beeswax, 25@27c.

Stocks are working down, but there is no improvement in price. The season for comb honey is drawing to a close. Any one intending to market in the cities should do so now.

Albany, N. Y., Mar. 20.—Fancy white, 12-13c.; No. 1, 11-12c.; fancy amber, 9-10c.; No. 1, 8-9c.; fancy dark, 7-8c.; No. 1, 6-7c. Extracted, white, 5-6c.; dark, 3½-4c.

Demand is all that could be expected at this season. Stock on hand small.

Indianapolis, Ind., Feb. 20.—Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Boston, Mass., Feb. 20.—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Cleveland, Ohio, Feb. 20.—Fancy white, 14½@15c.; No. 1 white, 12½@13c. Extracted, white, 6@7c.; amber, 4½@5½c. Beeswax, 22@25c.

There is not very much honey in our market Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

St. Louis, Mo., Feb. 19.—Fancy comb, 12@@13c.; No. 1 white, 11@11½c.; amber, 9@10½c.; dark, 7@8½c. Extracted, white, in cans, 6@7c.; amber, in barrels, 4@4½c; extra, 5c.; dark, 3@4c. Good demand for barrel stock—comb slow sale. Beeswax, 23@23½c.—prime finds ready sale at 23½c.

San Francisco, Calif., Feb. 24.—White comb, 9-10c.; amber, 5-7c. Extracted, white, 5-5½c.; light amber, 4-4½c.; amber colored and candied, 3¾c.; dark tule, 2¾c.

Beeswax, fair to choice, 23-26c.

Philadelphia, Pa., Feb. 2.—Fancy white comb, 12-13c; fancy amber, 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3½-4c. Beeswax, 25c.

Season is getting over for comb honey—very little demand. Extracted in good demand.

New York, N. Y, Feb. 20.—There has been a little better demand for comb honey during the last two weeks. Prices, however, will not improve, as the season is too far advanced and plenty of stock laying on the market. We have a good demand for extracted buckwheat, candied, and bee-keepers having their crop on hand yet, should now market it.

Beeswax is quiet at 26 28c., according to quality.

Cincinnati, Ohio, Mar. 9.—Demand is slow for extracted and comb honey. We quote comb honey at 10@13c.; extracted, 3½@6c. Dark comb seems to be an unsalable article at this time of the year.

Beeswax is in fair demand at 22@25c. for good to choice yellow.

Kansas City, Mo., Mar. 10.—No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 9@10c.; No. 1 dark, 8@9c.; Extracted, white, 5@5½c.; amber, 4½@5c.; dark, 4@4½c. Beeswax, 25c.

Detroit, Mich., Mar. 12.—No. 1 and fancy white comb, 11-12c.; other brands, 7-10c. Extracted, white, 5-6c.; amber and dark, 4-5c. Beeswax, 24-25c.

Minneapolis, Minn., Feb. 20.—Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Buffalo, N. Y., Mar. 19.—Demand is somewhat better for honey, although we advise marketing everything and cleaning it up. Strictly fancy comb, 1-pound, 10-11c.; other grades 9-5c., as to quality, condition, etc. Extracted, 4-5½c., as to kind and quality.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN,

Kansas City, Mo.
C. C. CLEMOMS & Co., 433 Walnut St.

Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
WILLIAMS BROS., 80 & 82 Broadway.

St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.
S. H. HALL & CO.

Milwaukee, Wis.
A. V. BISHOP & CO.

Boston, Mass.
E. E. BLAKE & CO., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. MCCULLOCH & CO., 380 Broadway.

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C. F. MUTH & SON, cor. Freeman & Central avs.

Honey - Clovers !

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5℔	10℔	25℔	50℔
Alsike Clover	$ .70	$1.25	$3.00	$ 5.75
Sweet Clover (white)	.60	1.00	2.25	4.00
White Clover........	.90	1.60	3.75	7 00
Alfalfa Clover.....	.60	1.00	2.25	4.00
Crimson Clover....	.55	.90	2.00	3.50

Prices subject to market changes.

Add 25 cents to your order, for cartage, if wanted by freight.

Your orders are solicited.

GEORGE W. YORK & CO.,
CHICAGO, ILLS.

One Cent invested in a postal card will get my large Catalog of All Root's Goods. Send list of what you want, and get price.

M. H. HUNT, Bell Branch, Mich.

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They are also largely interested in, and call especial attention to the 600,000 acres of land in the famous

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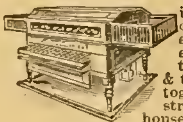
Mention the American Bee Journal.



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Box 73, DAKOTA, ILL., U. S. A.

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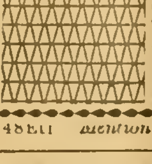

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Best on Earth. Horse-high, Bull-strong, Pig and Chicken-tight. With our DUPLEX AUTOMATIC Machine you can make 60 rods a day for 12 to 20 cts. a Rod. Over 50 styles. Catalogue Free.
KITSELMAN BROS.,
Box 138, Ridgeville, Ind.

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POSITION WANTED as assistant in an apiary. Have had some experience. Reasonable wages. Address,
CHAS. GRIESBACH.
152 W. Randolph St., CHICAGO, ILL.

FREE —A Copy of— **Successful Bee-Keeping,** by W. Z. Hutchinson; and our 1897 Catalog, for 2-cent stamp, or a copy of the **Catalog for the Asking.** We make almost **Everything** used by **Bee-Keepers,** and at **Lowest Prices.** OUR

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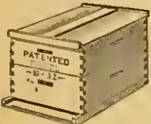

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of 50	hives,	$50	for the best	100	Danz. sections
" 25	"	25	"	50	" "
" 20	"	20	"	40	" "
" 10	"	10	"	20	" "
" 5	"	5	"	10	" "

☞ Further particulars regarding the premimums, also special catalog of the Danzenbaker Hive and System, furnisht on application. Address,

Francis Danzenbaker, Medina, Ohio.
Care The A. I. Root Company.

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18 years the Standard. The 4-inch "Smoke Engine." Is it too large? Will it last too long? Will save you lots of money and bad words. Send for Circular. 6 sizes and prices of Bingham Smokers and Knives.

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Williams' Automatic Reversible Honey-Extractor

LEADS THEM ALL. **You want the best.** Price-List Free.

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During the earlier years of its publication the BEE KEEPERS' REVIEW was devoted entirely to the discussion of special topics. Each number was really a little pamphlet containing the views of the best men upon some special topic. After publishing the REVIEW five years its editor wrote "Advanced Bee-Culture," a book of nearly 100 large, double-column, well-illustrated pages, which is really a summing up—the cream, so to speak—of those first five volumes of the REVIEW. It begins with the opening of the year, and takes the reader through the whole season, describing the most advanced methods for performing all of the most important operations until the honey is sold and the bees ready for winter. A single idea found in the book may be worth dollars to the reader. The price of the book is 50 cts., but for advertising purposes, for the sake of getting the REVIEW into new hands, this book is given absolutely free to any one not now a subscriber who sends $1.00 for the REVIEW for 1807. Address,

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20th Year **Dadant's Foundation** 20th Year

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Because it has always given better satisfaction than any other.

Because **IN 20 YEARS** there have not been any complaints, but thousands of compliments.

We Guarantee Satisfaction.

What more can anybody do? **Beauty, Purity, Firmness, No Sagging, No Loss. Patent Weed Process of Sheeting.**

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500 for	$1.25	500 for	$1.00
1000 for	2.50	1000 for	2.00
2000 for	4.75	2000 for	3.75
3000 for	6.75	3000 for	5.25

If larger quantities are wanted, write for prices.

Price-List of Sections, Foundations, Veils, Smokers, Zinc, Etc., Sent on application.

6A35t **MARSHFIELD MFG. CO., Marshfield, Wis.**

Cut Prices to Move Stock!!

There are a few items of desirable stock left of the goods secured of Thomas G. Newman when we took charge of his supply business here. In order to close these out and make room for fresh, new goods, we have decided to offer these at prices which will make them go.

The following is the list, which will be corrected as the stock is sold; if you see what you want here, order AT ONCE, or you may be to late:

V-Top Langstroth Frames, 75c per 100; 250 for $1.25; 500 for $2.
All-Wood Frames, pierced for wire, same price while they last.
No. 3 VanDeusen Thin Flat-Bottom Fdn., in 25-lb. boxes, $10.50 a box.
Wakeman & Crocker Section-Press, 50c each (old price, $1.25).
Townsend Section-Press, 50c. (old price, $1.)
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Hill Smokers, 40c each; by mail, 60c.
Quinby Smokers at 50c, 70c, and $1.00 each—20c extra by mail.
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Contributed Articles

The Use of Drawn Combs in Sections.

BY W. Z. HUTCHINSON.

There is probably no topic in which the apiarian world is more interested at present than in the one that I have used as the title for this article. We all know that, as usually managed, more extracted than comb honey can be produced—many say twice as much—but it is certain that much more can be produced. One reason for this, if not the main reason, is that in producing extracted honey no comb has to be built, that is, after a supply has been obtained. I doubt if anything is lost in the building of comb, that is, if the *wax* for comb-building is produced at a loss, under ordinary conditions, but the trouble is that so much time is consumed in comb-building, that a short, sharp, but very bountiful flow of honey may be practically lost if the bees are compelled to build combs in which to store it. In this connection, comb foundation is a great help, but it is *not drawn comb*, and cannot be such in much less than two days, and even *ten days*, in a short, abundant flow may mean a great deal. Drawn combs can be utilized *at once*.

To my mind, the main reason why more extracted than comb honey is produced, is because in the former case abundant storage-room of drawn comb is always furnisht. If we could always have sections full of nice drawn combs, I see no reason why we could not produce exactly as much comb as extracted honey. Mr. Heddon says that more extracted honey can be produced by using shallow extracting supers, and then tiering them up so rapidly, as the flow advances, that the bees do not fully seal the honey. This plan also largely saves in the work of uncapping. There may be something in this, but I see no reason why supers of sections may be rapidly tiered up in the same manner during a rapid flow, and then the capping of the combs completed later, after the rush is over.

I have thus dwelt upon the advantages of drawn combs in a heavy honey-flow, but in some localities and seasons it is possible that there may be still greater advantages in using them to get the bees at work in the supers early in the season. With Italian bees and a slow, gradual opening of the main honey-flow, the bees are loth to begin work in the sections. They will crowd the brood-nest, lessening the amount of brood that is produced, and will begin work in the supers when they are actually forced into them; that is, if the sections contain nothing but foundation. Fill the sections with drawn combs, and how different the case. The bees begin to put honey into the sections as soon as any can be spared for that purpose. They seem to *delight* to begin work in the supers when they are thus supplied with drawn combs. Pressure upon the brood-nest is stopt, and more brood is the result. A super of sections having drawn combs will often be completed and ready to come off, and work commenced in a second super by the time that work will be simply *commenced* in a super containing foundation only. A super of drawn combs in the spring often means another super of finisht comb honey, and the bees *inclined to work in sections instead of swarming*. This latter is *a big* point sometimes.

There are different ways of getting drawn combs in the sections. At the end of the season there are always more or less of unfinisht sections. There are two methods of dealing with those that are nearly finisht—that of "feeding back" extracted honey to secure their completion, and of selling them at a reasonable price in the local market. For most bee-keepers, the latter course is probably preferable. All sections that are not three-fourths completed better be emptied by setting supers of them over colonies that are lacking in stores, and then the dry, clean combs kept over for use the next spring. Any combs that are over one-half completed better be leveled with the comb-leveler before putting them on the hive. In those localities where there is a fall flow of dark honey that will bring only a low price, it can be used to the best advantage in drawing out foundation in sections to be used another year for storing white honey. In other localities it may be profitable to feed sugar in the fall, selecting for the work colonies that are lacking in stores, and thus have foundation drawn out in the sections for use the next season. This same work may be done in the spring, and thus not only get the combs drawn, but so fill the brood-nests that when the season's honey harvest finally opens, the honey must go into the sections because there is no other place in which to put it.

Some have reported excellent success in having foundation drawn out in full sheets, and then cutting it up and fitting it into the sections. This greatly increases the work. and I feel satisfied that if the use of drawn combs becomes general, it will be by having them drawn out directly in the sections.

I recently exprest my views regarding the new deep-cell foundation, with which The A. I. Root Co. is experimenting, and have only to add when such a man as E. R. Root says that the comb resulting from the use of this new foundation is as brittle and "eatable" as natural combs we can only wait—suspend our judgment until we can try it ourselves. If it should turn out that the use of this product does not debase the comb honey, and it can be produced in commercial quantities, at a low price, it is quite likely that it will solve the question of *how* drawn combs should be produced. In the meanwhile, we can go on getting drawn combs according to the plans that we know are successful.

Genesee Co., Mich.

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A Visit to Switzerland and France.

BY GUSTAVE GROSS.

During my visit to Switzerland and France, the past winter, I seized every opportunity to inquire about the state of apiculture there. I saw a good many bee-keepers, visited several apiaries, and from all I saw I came to the conclusion that apiarists there are far behind us in their practice, which may in part be accounted for by the fact that they do not read bee-papers as we do here. Of course, there are exceptions, but it was not my lot to meet with such. Besides, the honey resources of the country are not nearly as good as ours. In Switzerland (the part I visited) they get their surplus mainly from the pines, and it is only a honey-dew, in color resembling our buckwheat honey, having a strong "piney" taste, though very sweet. The honey is mostly extracted, sections are high, $7.00 per 1,000, while heavy comb foundation costs 50 cents per pound; but they told me it was very hard to get it pure, the most of it being mixt with paraffine.

When they produce honey it is in the old-fashioned straw skep; the cap, holding may be 15 pounds, being taken off when full and sold that way; I saw it in all the stores, while honey in sections was very scarce.

The DeLayens hive is mostly used, being about square, with the frames either perpendicular to or parallel with the entrance. There was quite a diversity of opinions on this subject.

The bees are wintered out-doors in Switzerland, and generally come through all right, but they nearly always have to be fed in the spring.

Extracted honey sells for about the same price as the comb—from 24 to 28 cents per pound, according to the crop. In the south of France, near Bordeaux, they seem to get better crops than in Switzerland; their surplus comes from black locust and basswood, and is gathered in May and June. Their spring is very early there; on Feb. 15 I saw peach trees in bloom, the bees were bringing in pollen, and there was sealed brood in all the hives. The colonies get strong in time to swarm at the end of April, just before the locust bloom. They use a hive with 16 frames, about 16 inches square. As the most of them work for extracted honey, and do not use upper stories, they extract from the outside frames; but what a work! the frames have to be taken out from the side, for the top cannot be opened. I saw an apiary where the hives were put on top of each other, four high.

The bees there are mostly the common black bees; I saw very few Italians. In the city of Bordeaux are many bees, but I was told that they were mostly affected with foul brood, a result, they thought, of robbing the sugar refineries. My brother, who has a large fruit-canning establishment, told me that in summer he lost from $3 to $4 a day by the bees (sugar is 12 cents a pound in France, there being a heavy tax on it). By the nature of his business he cannot get even with the bees, as they do in the sugar refinery that I visited, where the superintendent told me that they swept the bees together, put them in a bag, hung it on a peg, and by their own weight the sugar or syrup was squeezed out and then boiled again, so there was very little loss!

Honey is used very little in France, which may be due to its poor quality. In one of the stores they had quite a lot of section honey, but it was half capt, dark, and partly candied. I bought one section for which they charged me 30 cents! I think if they would put up their honey in nice shape there would not be cases like that of a man I heard of, who had 600 pounds in his cellar, and could not sell it. When I left here, I took with me a 12-pound case of basswood comb honey, and how everybody admired it! They said they had *never* seen such nice honey, not even in their expositions.

I had to give them a talk on apiculture in the United States, and afterwards repeat it to a large audience. I gave them one of the sections of honey to look at, and taste of, and most of them thought it was delicious, but a few found it too strong for their taste.

I had been explaining to them my way of hiving swarms with clipt queens. The next day it was reported to me that one of my hearers was pitying me, thinking what a job I must have every spring to cut the wings off all my bees! The joke was on me.

Jefferson Co., Wis.

Can We Dispense with the Handling of Frames?

BY G. M. DOOLITTLE.

In the struggle which apiarists are compelled to go through, in these times of low prices of honey, in order that they may live at their calling, or chosen pursuit, many "short cuts" are advocated and many plans put forth, which were never thought of when honey sold at paying figures. All know that the less work we do in the apiary, or the less work done with a single colony, helps toward making a given price for our honey, pays us more for the labor performed, other things being equal. But the question which confronts us is, Will we obtain as much honey from our bees, with little or no work expended on them, as we would if we gave them the same care we did in former years, when honey brought from double to treble the price it now does? I know that there are many "short cuts" which we can take to advantage, but are not some of the short cuts advocated, very prolific in making "slipshod" bee-keepers?

Some are advocating the handling of hives instead of frames as a means of cheapening the production of honey, claiming that any bee-keeper of average intelligence can learn to diagnose colonies with scarcely ever opening any hive, or ever taking out a frame. Such advocacy has in it, in my opinion, the element of impressing the beginner that a careless style of bee-keeping will accomplish as good results as will one of push and energy, which is incorporated in the handling of frames. Bee-keepers of long experience can be trusted better to guess at the inside conditions of a colony from the outside appearance of the same; but I contend that, in order for any person to become an accomplisht apiarist, he must, in his initiatory steps, become thoroughly acquainted with the inside workings of a colony of bees by actual inspection of the frames of brood, honey and combs. Handling hives, in the abstract, admits of no suitable knowledge of the inside workings of a colony equal to even a fair guess; hence I claim that the ideas advanced by some have a tendency of carrying us back to the days of our fathers, when our beloved pursuit was pretty much shrouded in mystery. Just listen to the following which I found in one of our bee-papers:

"We have lost sight of the advantages of judging from outside appearances in our use of frames. If an experienced bee-keeper places his ear against the side of the hive, and raps or jars, he can tell by the sound, pretty well, the condition of the colony inside of the hive. During the early spring, in cold storms, when there are colonies in the apiary that are liable to starve, if the apiarists will go from hive to hive every day and place his ear on the side of the hive and rap, he can tell by the sound whether all are fed. If the response is weak, a little syrup given immediately will soon restore the strong, vigorous response to the rap," etc; while much advocated by others savors of similar import. And all for what? That we may do something out of the usual line and learn to think that no amount of work shall be considered too menial so long as the *handling of frames* can be avoided in this great strife in producing honey cheaply, so that apiarists can live by producing honey at the present, and fast becoming, depressed prices of the same.

Just think of such apiarists as Mr. Secor, Dr. Miller, or Dr. Mason, going out every day in slush and storms, getting down upon "all fours" in the mud and snow, placing their ears to the side of the wet and nasty hives, and rapping on the same to know whether any of the 101 colonies are going to starve, when once handling of the frames during the first flight of the bees in spring would place them where either would positively know that *no colony* need starve during the next six weeks to come!

Think of turning a hive bottom side up, and with smoke, driving the bees down among the combs, peering in as best we can, setting the hive back on the stand again, removing the covering from the top, smoking again, and looking down into hive that way, all for the sake of guessing what is inside, when once handling of the frames the fore part of June would give any one a perfect knowledge regarding all that would be necessary to know about that colony for the next month to come! Is such as this to be the advancement (?) of the future? If so, then I am glad that my apicultural life was cast among those of the past. I cannot feel otherwise than that the whole thing is a step in the wrong direction.

Beginners should be taught that it is an absolute necessity that they fully master all the miuntia of the inside workings of a colony of bees, and after this has been fully learned, frames are to be handled only where a gain can be made by them. Work in the apiary is required only where a profit is to come from that work; and that this handling and work must be done at the right time, in the right manner, and in the right place, if they would become successful apiarists.

It is with pride that I look at our achievements in apiculture during the past third of a century, and I doubt the advisability of our now going back to the guesswork of our forefathers. Rather let us keep climbing the hill of scientific apiculture till we shall have reacht the loftiest table-lands, and from there shout forth the victory which may come to us through this always forward movement. Let the watchword be "FORWARD, MARCH!" Forward, till the unfathomable depths of the *present*, are reacht in the future; till the mind has grasp *all* that the mind of the Infinite has intended we should understand of this our beloved pursuit.

Onondaga Co., N. Y.

Against the "Weed" Deep-Cell Foundation.

BY THOS. G. NEWMAN.

I have read with interest the articles in the bee-periodicals by Mr. T. F. Bingham and Mr. W. Z. Hutchinson about the use of the new "Weed" foundation, and must say that I share their apprehension respecting the effect it may have on the pursuit of honey-production and honey consumption.

For years I fought the statement of Prof. Wiley, that combs could, or would, be made by machinery, filled with honey, and be placed upon the market. I stated that it was untrue, and even went so far as to say that I did not believe that it could be done.

I desired to protect comb honey from the suspicion which might attach to it, if it was thought that the combs *could* be made and filled with adulterated, glucosed, or bug-juice honey, or even the poor qualities of dark and unpalatable nectar.

I wanted to keep the sections of comb honey so far above suspicion, that the fact of their being so put up, would be a guarantee of purity—virgin comb, filled with God-given nectar by the bees, and fit for the banquet of "the gods of old Olympus," or for any mortal or immortal being in the universe.

I tremble for the results, as I notice the efforts now being put forth to make the cells nearly one-half an inch deep, by the *new* foundation comb of the "Weed" pattern. It comes too near—horribly too near—to the manufactured comb described by Prof. Wiley a dozen years ago.

Is it not putting a club into the hands of the enemies of the pursuit, to beat out the brains of the apiarists? If not, is standing on dangerous ground?

True, I grant you, it is *intended* for honorable work, but it makes dishonest work possible, and should be shunned as you would an adder? I surely think that it will injure the sale of honey, and destroy the pursuit, unless a halt is called.

Another danger is seen. It may give chance for the "midrib" scarce to arise again, and be a detriment to honey consumption. To apiarists, let me say, do not think of such a thing as using even *thin* brood-foundation in the sections, nor countenance this Weed abomination.

The remark of Mr. T. F. Bingham is to the point, and very appropriate. He says: "Butter is butter, but melted butter is grease; so comb is comb, but melted comb is wax." Let us be very careful not to allow the pursuit to be injured by the use of *too much wax* in the sections of comb honey.

San Francisco Co., Calif.

[As Mr. Newman has had no experience with the new deep-cell foundation, any more than has Mr. Hutchinson or Mr. Bingham, their suggestions can be taken only as an opinion. We do not anticipate any of the ill-effects mentioned in the foregoing. At any rate, it will be well to wait before passing judgment until bee-keepers have had an opportunity to fairly test the deep-cell foundation on a small scale. Then if it proves to be too "fishbony" or "mid-ribby," or in any way threaten the destruction of the industry, its use can very easily be discontinued. In the meantime, let us not work up any unnecessary or undue excitement over the matter. Mr. Weed, the inventor, is not a vicious man, nor are the makers of the deep-cell foundation anxious to ruin the honey-industry, for by so doing they would but ruin themselves.—EDITOR.]

Bi-Sulphide of Carbon a Foul Brood Remedy.

BY C. DAVENPORT.

Ever since I began bee-keeping I have had a great dread of foul brood, and until but a few years ago, comparatively speaking, its appearance in a yard usually meant the total destruction of the whole apiary. But now that the nature of the disease is known and understood, it can be cured by a method which probably all who read this understand. This method is, tho, a great deal of work and a large expense, as it involves the destruction of all the frames and combs in the hives of the colonies affected.

There are a few who say that it is not necessary to boil or disinfect the hive itself in any way. In curing the disease by the method of changing frames twice, I have no doubt that a cure will sometimes be effected if the hive is not disinfected, for if there are germs of the disease in any small amount of honey that may be left inside the hive, this will at once be consumed by the bees and used in comb-building, or stored in the first set of combs, the same as the diseased honey with which they are filled at the time of removal. But it seems to me there might be cases in which some infected honey in a crack or hole in the hive, where the bees could not reach it, would cause the disease to break out again. I believe the majority of the best authorities on the matter consider it necessary to disinfect the hive.

I believe that I have discovered a method by which this disease may be cured with much less work and expense; the frames and combs, as well as the hives, are saved, and any honey that may be in the infected combs is saved, and does not have to be extracted or removed from the combs. The healthy brood can also be saved without much work.

Three years ago last summer I conducted a great many experiments with different kinds of drugs, trying to find a better method of killing moths in comb honey than by the use of sulphur. I was unsuccessful in this, for the fumes from any drug I tried, that would kill the moths, also injured the flavor of the honey. In these experiments I found that the fumes from bi-sulphide of carbon were very penetrating; they would go right through and through a comb of honey. This fume, or gas, is also deadly poisonous. But it all evaporates from the honey after it has been exposed to the air for some time. Honey treated by this method, tho, seems to become thinner, and the flavor is injured, but it is all right for the use of the bees, and the combs are not injured any, no matter how long they are subjected to the fumes. I decided that these fumes were strong enough to kill the germs of foul brood or any other disease. I did not have, nor never have had, any foul brood among my bees, but I thought if it ever did appear I would give the matter a trial.

The next summer, however (which was two years ago), I resolved to send for some samples of foul brood, and after a good deal of correspondence over the matter, I received three samples by express. Two of them were not foul brood, altho they greatly resembled it; the third was genuine foul brood, in an advanced stage of rottenness; it was a piece of comb about 6 or 7 inches square, containing some honey, and about ⅛ of the cells contained dead brood in different stages. This was treated to the fumes of bi-sulphide of carbon over night, or about 10 hours. A colony was isolated from the rest, and the piece of foul brood laid on top of the brood-frames near the center of the hive; the cover was placed on, and prest down, which masht it so that it ran over the combs, brood and bees. The front of the hive was raised so that none of it would escape. No signs of the disease have appeared in that colony as yet.

Now, if the bacilli and spores of foul brood can be killed by this means (and in my mind there is not a doubt but what they can), a tank could be made large enough so that several hives could be treated at once, if there were many colonies affected. Only a few extra hives with frames would be necessary, for the infected hives and combs could, after treatment, be used for the second change. Combs containing healthy brood could be tiered up on one or two hives, and these then treated after the brood had hatcht. No frames, combs or hives would be injured in the least by this method. While frames are not very expensive, their cost, with the freight, work of nailing them together, and a sheet of foundation for each one, would make quite an item if many colonies were affected.

I think all will see the great advantage this method would possess over destroying the frames and boiling the hives, for it would not be nearly as much work to disinfect them as it would to nail new ones together, to say nothing about their cost. The cost of the bi-sulphide of carbon would be but a trifle.

To disinfect combs by this method, all that is necessary is to place them in a very tight box, with some of the carbon in an open dish, so it will have a chance to evaporate. The box should be as nearly air-tight as it is possible to make it. The amount of carbon to use does not matter, so that there is enough; for any that does not evaporate will be just as strong, or good, to use the next time.

Moths in brood-combs can also be destroyed by this plan, which also kills the moth-eggs, if there are any. But as this method injures the flavor of the honey, if it were used as a means of killing moths in surplus comb honey, our industry would be greatly injured, if not destroyed.

Before closing, I will add a word of caution about the use of bi-sulphide of carbon. It is not only very inflammable, but it is explosive as well. No one should ever go near it, or the fumes from it, with a light or fire of any kind.

Southern Minnesota.

Pres. J. M. Hick's Address Before the Indiana State Convention.

I would like to suggest several thoughts for consideration for our mutual benefit.

First, It occurs to me that we all should try to economize our precious time to the best interest of each and every subject of importance to the bee-keeper.

Second, That in doing so, we not only advance the best interest of those who keep bees for profit, but also that of every farmer and fruit-grower in the State.

Third, Let me admonish you, one and all, that it is well known by many who have kept bees in years gone by, as well as those who keep bees now, that almost all the natural resources for bees have, by natural causes of civilization, been greatly and materially lessened in our State; hence it should become a matter of interest to us all to look well to the best methods of furnishing the best means of supplying our bees with pasturage for honey. I have no fears of failure in keeping bees for profit, if we have plenty of pasturage for them to work on. This can, in many ways, be supplied both by the bee-keeper and many times by his neighbor; and that, too, with double profit to both.

Fourth. This now brings me to the subject I most desire, for the greatest good to the greatest number—that of proper legislation by the law-making power of our State, to exempt bees from taxation, in order that we may, as an organization, try to induce more of our citizens to go into bee-keeping, at least to keep a few colonies. It is a well-known fact, that at the present time there is not one colony of bees kept in our State where there were at least 50 colonies 40 years ago; neither is there one pound of honey or wax produced where there were 50, years ago, by those of our primitive bee-keepers.

I wish I could impress the idea upon this Association, of the great importance of having a full and careful report of the proceedings of this Assocation each year, so that they may become of more interest to each and every bee-keeper of our great State.

It is a noted fact, as a practical illustration, that the county of Clinton, now leads in our State the greatest number of colonies of bees, there being within her borders 1,998, and yet there were in the same county nearly 6,000 colonies in 1856. And in Ohio county there were, in 1856, 1,239 colonies; at present only 191. So it is to-day in nearly all the 92 counties of our great agricultural State; we find less than a fourth as many colonies as were kept 40 and 50 years ago.

I feel it my duty to inform you of the facts, and if possible let us all put our shoulders to the wheel, and try to correct such mistakes by at least asking our law-making powers to place all the bees of our State on the free list, so that all who may wish to have few or many colonies may do so free of taxation. This, to my mind, would be quite an encouragement, or incentive, for all who may wish to start again, as well as those of us who may wish to increase our depleted apiaries, and thus materially aid our agricultural brethren, as well as all who may be engaged in and are raising the various fruits of the State. And thus we become mutual benefactors, and greatly add to the material interest and wealth of all good citizens of each community. J. M. HICKS.

CONVENTION PROCEEDINGS

Proceedings of the Colorado State Bee-Keepers' Convention.

REPORTED BY F. L. THOMPSON.

[Continued from page 182.]

CARBOLIC ACID AND PINE TAR A CURE FOR FOUL BROOD.

Some three years ago, after trying for two years or more to get rid of foul brood in my apiary, and using every remedy that I then knew or could hear of, and having failed to succeed, I concluded to try what a number of people said was the only sure cure. Accordingly, I supplied myself with a liberal supply of sulphur and killed all my bees, and of course got rid of all the foul brood—and bees also. I then gathered all the dead bees together and cremated them.

The following season I purchast new swarms, and put them into new hives, and for two seasons was free from the dreaded disease. About a year after killing my bees, I saw in Gleanings in Bee-Culture, an item giving a remedy that was copied from the Deutsche Imker, that imprest me as being one worth trying. I lookt through Gleanings to find some notice of it editorially, but found none; however, I made a note of it, thinking if my bees were ever troubled with foul brood again, I would try it.

Last season the opportunity came, and I tried the cure, and watcht its results with a great deal of interest and satisfaction. On examining my bees in May, I found four colonies that were infected with foul brood—two slightly, and two very badly. I immediately moved them out of the apiary some 30 rods, and began treating them, looking after them about twice a week. After about three weeks the colonies that were slightly infected only, seemed to be rid of foul brood, and were strong; and when the honey-flow commenced I put on the supers, and they filled two each; and in the two badly infected colonies, at the end of two months I was unable to find a trace of disease, and they were very large, strong colonies. I examined them carefully several times before the close of the season.

The remedy or cure is very easily applied, and is as follows:

The pure carbolic acid one part, common pine tar one part (or half and half); mix thoroughly. Get a shallow tin box for each colony; with an awl perforate the cover in order to let the odor escape; put about two tablespoonfuls of the mixture in it and place in the center of the hive, under the frames, and if in three months the foul brood has not disappeared, renew it. This is the cure, and I believe it to be a sure cure, from my experience. COL. WHIPPLE.

Mr. Adams—Liquid carbolic acid bought at the drug store is anywhere from 35 to 90 per cent. pure. To get it pure, buy the crystals and melt it, with a tablespoonful of water to a pound of acid. I have used exactly the same ingredient (with the addition of turpentine, which I think is an improvement) as a disinfectant of chicken-houses, etc.; also when exposed to diphtheria, with success. It never occurred to me to apply it to foul brood, but I believe it would be a good thing.

Col. Whipple—The colonies treated are the strongest in the yard.

Mr. Rhodes—Sometimes the brood is dried up and covered with honey, and the disease appears the next season.

Col. Whipple—I examined just for that. I markt the infected portions.

Mr. Tracy—I have not tried carbolic acid as a remedy, as it was claimed by Mr. Root to be ineffective. Why does Mr. Root say there is no virtue in carbolic acid? I have been using carbolic acid as a preventive each spring for six years. There was foul brood all around, up to within half a mile, but I had none during that time.

Col. Whipple—Mr. Root doesn't know everything! It takes a novice to try these things.

Mr. Rhodes—But old, sealed honey keeps the disease. The remedy does not take out the foul brood which is dried at the bottom of the cells. I have here a sample of comb brought by the Secretary, in which you can see the foul brood dried at the bottom of the cells.

Col. Whipple—The remedy kills the germ—what difference does it make if it is covered up afterwards?

Mr. Adams—If it is covered up before the remedy is applied, the remedy cannot act.

Mr. Rhodes—One must be cautious in trying such things, and be sure to make good work.

Vice-Pres. Porter—Mr. Whipple did his work in a thorough way. I askt him to present the matter; not that I think it absolutely certain. I never did have any faith in "sprinkling;" but this is different.

Mrs. Booth—I shall try it, even if Mr. Whipple's bees do have the foul brood again.

Mr. Dudley—Our bee-keepers follow the plan of transferring to new hives and sheets of foundation. It is more laborious, but has given good satisfaction.

Col. Whipple—I tried the transferring plan, and took a great deal of pains. In the fall of the year I found 10 or 12 colonies infected with foul brood. I tried it for two years and did not succeed, then killed the bees.

Mr. Brock—Were you near other apiaries where there was foul brood?

Col. Whipple—I do not know.

Mr. Brock—One season I transferred the whole yard, and foul brood returned. I laid it to the surroundings. I transferred another time when there was no foul brood in reach, and to-day those bees are in good condition.

Col. Whipple—For two years after killing I had no foul brood. Hence, there seems to have been no foul brood around.

H. Rauchfuss—It is not easy to keep foul-broody combs away from bees. The best honey-house is not safe. You might have got it that way. And then, it is said that the germs float in the air. Even if the bees were kept away, the combs might be a source of infection.

Col. Whipple—I melted all my combs soon afterwards.

Mrs. Booth—Can honey be disinfected by boiling? I burnt frames and combs; boiling the honey a long time, and put some carbolic acid in. Will this do to feed the bees?

Mr. Adams—There is not a particle of danger. The honey ought to be thinned.

Vice-Pres. Porter—I always feed it back. I add no acid. It should be thinned, boiled until it foams, and the foam skimmed off. There is no possibility that a germ can live in boiling water.

Col. Whipple—I believe the sun's rays are enough to kill the germs, but I always boiled the honey.

Mr. Adams—The sun's rays will kill dry foul brood, but not foul brood in honey.

Mr. Booth—Is foul brood animal or vegetable?

Mr. Adams—It has the power of locomotion, but is a vegetable.

FOUL BROOD LEGISLATION.

The report of the legislative committee was resumed. It was stated that as one member, Mr. Adams, lived away from Denver, and as there had been some delay in correspondence, Mr. Adams was not responsible for most of the changes proposed in the present law relating to bee-diseases. The first change was to add to the first section, which relates to the appointment of inspectors by County Judges, at the request of the President or Secretary of the Association, or of five actual bee-keepers of the county, a clause providing that such persons appointed should have previously past an examination before a committee appointed by the Secretary of the State Association, and authorized by the State Agricultural College.

Mr. Booth—The inspector should hold a certificate from the college, as the horticultural inspectors do. But perhaps we had better not meddle with the law. We may lose it entirely by so doing, as there is a disposition to oppose it in some quarters.

Secretary Rauchfuss here read a letter from the inspector of Montezuma county, Mrs. A. J. Barber, in which she said that for several years that county had been without an inspector, though one was needed, because the County Judge had refused to appoint one, alleging the unconstitutionality of the law. Last year a new County Judge came in, and an inspector was appointed.

Mr. Brock—The Association should pass upon the man, not the college.

Mr. Rhodes—The Judge is not the man to decide on the constitutionality of the law. I am not in favor of amending the law at present.

Mr. Adams—Is the law constitutional until declared unconstitutional?

H. Rauchfuss—If the law is not amended, it will be repealed, there is so much opposition. We had better have no law than the present one. The bee-keepers are at the mercy of the inspector. It is very easy to find five bee-keepers who don't know much. How many of our inspectors are selected by competent bee-keepers?

Mr. Adams—The inspector is also at the mercy of the law. I would much rather have our present law than none at all. None but an expert could have kept bees without it.

Mrs. Booth—My trouble was to get an inspector to come. I have no fault to find with the bee-inspector.

Vice-Pres. Porter—There is a penalty for the inspector. He can be removed from office.

Mr. Booth—No inspector inspects in the winter.

H. Rauchfuss—But there is nothing to prevent him from doing so. An inspector may be incompetent. I know that a certain lot of bees was moved on the certificate of the inspector that they were free from foul brood. I found the disease among those bees before and after the certificate was given.

Vice-Pres. Porter—Five bee-keepers in one's own county are better than a certificate from Ft. Collins. As a whole, there has been very little complaint under the law. The work has been well done.

Mr. Rhodes—We want all the defects of the law brought out, provided the law is not broken down.

Mr. Sylvester—It is claimed that foul brood may be an advantage to those who are posted—it keeps other people's bees from multiplying! There is too much authority given to the inspector, but I have not known of an inspector who took advantage of it. The only trouble is that taxes may be increast by some one who wants to make money. My opinion is that the law should remain as it is, unless you want it repealed. I think formic acid and lysol are far preferable to carbolic acid. It is reported from Hamburg that foul brood germs are almost everywhere. Nature has provided formic acid in the honey to destroy the germs, provided they are not too excessive. Foul brood sometimes disappears in a good flow of honey. I should use lysol and pine tar.

Vice-Pres. Porter—It takes some time to find the right proportions of these new disinfectants. The continuous odor from carbolic acid and pine tar strikes me as likely to be effective.

The rest of the proposed amendments were then read, and the first section read again.

Mr. Tracy—A committee of practical bee-keepers is better authority than the college.

On motion, action on the amendment was deferred until the second day.

Mr. Booth then read Mrs. Booth's paper on "Early Days of Bee-Keeping in Colorado," which was not handed in to the Secretary.

The inspectors' reports were then read. As the Secretary contemplates a classification of these, and a comparison with former years, they will not be given at present.

Mrs. Booth—Supposing the weather turned too cold to inspect, after the inspector had arrived at an apiary. He ought to have his pay for the time expended.

Mr. Tracy—The inspectors should be paid traveling expenses for a personal visit to the Association meeting, when they make their reports.

Vice-Pres. Porter—Mr. Adams, how many years have you been inspecting?

Mr. Adams—Six or seven.

Vice-Pres. Porter—How does this report compare with those of former years?

Mr. Adams—Of late it has been increasing, coming over from Weld county. My first year's report, as nearly as I can remember, showed 11 per cent. diseased out of two or three thousand colonies inspected; the next year, 7 or 8 per cent.; and next year, very little. The law saved our district.

Mr. Booth—I was appointed a committee by the Horticulturists to confer with a committee appointed by this Association on changing the law so as to allow of printing the Bee-Keepers' Association reports with those of the Board of Horticulture, in accordance with a resolution I introduced in their meeting. It was stated in their Legislative committee that bee-inspectors had more authority than fruit-inspectors. To show the importance of our business, I will state that considering the time spent, my wife made a greater proportion of money from her bees than I did from my fruit and farm.

SECOND DAY.

The reading of the proposed amendments to the law relating to bee-diseases was repeated.

On motion, the amendment to Sec. 1, providing that an inspector should pass an examination before being appointed, was rejected.

A clause added to Sec. 2, providing that the inspector should give $500 bonds, was adopted.

Clauses in various sections, alluding to "any source of infection," and designed to cover cases in which what were formerly apiaries, but could no longer be called so, yet were sources of infection, were approved.

A provision added to Sec. 4, creating a Board of Arbitration to settle disputes between inspectors and owners, was rejected, after being thus discust:

Mr. Booth—*Anybody* may be found fault with. Let the owner suffer. I pity him, and for that reason don't want to give him any chance to get in a lawsuit. I remember a case in which the inspector proved to be right, and a man well acquainted with bees was wrong. Don't give any chance for controversy.

A clause added to Sec. 4, requiring the inspector to make a second visit in five days, was rejected after the following discussion:

F. Rauchfuss—Suppose the inspector says he can't come because he is not paid for second visits? The inspector of Arapahoe county is given orders not to make second visits.

Mr. Adams—The inspector is free to act regardless of the orders of county commissioners. In 6 out of 10 cases it is not necessary to make a second visit; but this clause compels him to add expenses to the county. Yet something should be added to protect the inspector. But he should not be compelled to make the second visit.

Mr. Booth—We generally have pretty good men for county commissioners. If three or four bee-keepers talk to them they will grant anything reasonable.

H. Porter—My commissioners refuse to pay for second visits, so I just let the matter stand. Would the inspector be allowed to go, providing he was sent for? I have been sent for the second time.

Vice-Pres. Porter—Make it an original case each time. If an inspector is notified, he has to go. We want to protect both the county and the inspector.

To Sec. 5 the committee had proposed to add the following: "And should said inspector neglect to disinfect himself and assistants, or fail in the performance of any of his duties as defined by this Act, he shall on conviction before any Justice of the Peace, be liable to a fine of not less than $20 or more than $50; and after being found guilty on two occasions of neglecting his duties as set forth by this Act, he shall be disqualified from holding his office." The part relating to disinfection was rejected, and the rest adopted, after the following discussion:

Mr. Adams—What constitutes disinfection? It should be done between every two hives he visits. I do so.

Vice-Pres. Porter—The inspector should carry an atomizer.

The proposed addition to Sec. 7, forbidding under penalty the moving of apparently healthy bees in an infected district in a county which has an inspector, without a written permit from the inspector, was adopted.

A change in Sec. 11, requiring the inspector to make his report to the county officials first, was adopted.

A motion that the committee be instructed to add a clause restricting the expenses of the inspector to a certain sum was carried, but afterwards reconsidered, and the report as a whole was adopted as amended. No action was taken either to discharge the committee or to instruct them to present the adopted amendments to the Legislature.

(Continued next week.)

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

A Gentle Hint to Questioners.

The desire of the American Bee Journal is to give the greatest freedom possible to all who write to it for information or otherwise. When a question comes for answer, it will receive earnest attention, no matter whether it be well or poorly written. But it does make a difference as to one's comfort in the matter. Before me lies a postal card crammed full of closely-written matter not the most easily read. It would have cost a cent more for postage if it had been sent in a letter, but I'd a good deal rather pay the extra cent and have it in better shape. There's not the slightest objection to the use of a postal card, and in some respects it is preferable, providing there is plenty of room on it for what is to be written. But please remember that when a question, or a series of questions, is plainly written, without any crowding, it's a bit easier to get at what is wanted, and you're more likely to get what you are after in the reply. Of course, there's no desire to repress questions. Send them along, even if they must be dimly scribbled on scraps of refuse paper, but if written with some attempt at neatness and legibility the effort will be appreciated. C. C. M.

Contraction to Stimulate Breeding.

1. In restricting the bees to a small number of frames in the spring to stimulate breeding, as described by yourself and Dr. Gallup, are the frames not in use removed from the hive? And if so, must the space all be taken by dummies?

2. Should the division-boards which confine this restricted brood-nest fit tightly at the top, bottom and ends?

3. At about what time in this locality should this process be begun?

4. Please throw in any chunks of wisdom which you think might be of use to— CHUCKLEHEAD, Dupage Co., Ill.

ANSWERS.—1. As a matter of actual practice, I don't do anything of that kind nowadays. Careful experiments made in France (I think it was by Prof. Gaston Bonnier) seemed to reach the positive conclusion that the heat of the brood cluster was conserved as much by having brood-combs left in place as by using close division-boards. The experiments were made by having a heating apparatus in the different hives and under different conditions, and were given in detail by the French bee-journals. It seems rather reasonable to suppose that a close-fitting division-board would be warmer, but if it is, the difference is not enough, I believe, to pay for the trouble of making changes. Better have colonies of such strength that there isn't much chance to shut them down on two or three frames, or even four.

However, if you want to try restricting them, there's no need to remove the combs from the hive, so far as the bees are concerned. Just put in your division-board, crowding the unoccupied combs sufficiently to make room for the division-board.

If for any reason you think best to remove the combs, no need to replace them with dummies.

2. If division-boards are to confine the heat, the more nearly air-tight the better. But it's more troublesome to make them close at the bottom than elsewhere, and not of much consequence, for no warm air will escape at the bottom, but cold air enter there, and if all is close above there is no chance for escape of warm air, consequently no chance for entrance of cold air below.

3. From what has been said above, you may gather that I would begin it about May 1, but if you think best to begin at a different date, begin about the time of first spring flight when it's warm enough to open a hive without risk of harm from chilling bees or brood.

4. As you get to be less chuckleheaded in the bee-business, you'll probably settle down to have never less than eight brood-combs in charge of the bees at any time of the year, leaving to others the trouble of changing at different times, and breaking up arrangements that seem to suit the bees very well without your interference. Now that's the only chunk you get till you ask some more questions, which I'll be glad to have at any time.

Size and Shape of Full-Pound Sections.

If you sold your sections by the piece, and wanted them to weigh full pounds, what size and shape would you use? and what surplus arrangement for 10-frame hives? E.

ANSWERS.—I don't know that I'd want anything of the kind, but if I did I suppose I'd want them (if to be used with separators) about 4¼x4¼x2, in T supers. But please understand that you can't find a section of any size that will give you a uniform weight of one pound. At least I've never yet heard of a man who had succeeded in getting the same weight throughout a super in different colonies and in different years. I should consider it remarkable to find a super containing 24 sections with not more than ½ ounce difference between the lightest and the heaviest. Moreover, I should consider it equally remarkable to find a man who had for five consecutive years got crops of 1,000 pounds or more with no greater variation in that time than ¼ of a pound between lightest and heaviest. From my present knowledge, I'd use T supers.

Questions on Spring Management.

As I purchast two colonies of bees last fall, and am having poor luck, and don't see the information in the Bee Journal I want, I thought I would ask a few questions. I have lost one colony from some cause or other. I have them in the cellar, and when I found they were dead or dying, I brought them up, and on examining I found they were nearly all dead, but had about 10 pounds of honey, but it was granulated, and tasted rather old. All through the brood-nest were spots of white mold. This is my first experience with bees. I gave the other colony two pieces of the honey, and they ate it.

1. Would it be policy to give them any more?

2. If they should live until summer, and swarm, would it be policy to put a new colony in the old hive?

3. If so, how am I to prepare it? Shall I take out all the old comb, or put in a new swarm just as it is?

4. When ought I to take them out of the cellar, and put them on the summer stand? D. W. S., South Dakota.

ANSWERS.—1. There is a great deal more danger of giving too little than too much food. The only danger as to giving too much is that if the brood-nest is too much filled with honey the queen hasn't room to lay. Possibly, however, your question may mean whether the stores taken from the dead colony are wholesome food for bees. As the honey is granulated, there is likely to be some waste in feeding it, but aside from this there is no objection to feeding it, especially at this time of year when the bees will soon have a flight.

2. Yes, the old hive will be good to use for a swarm.

3. If the comb is clean and nice, it will need no preparation whatever. Very likely, however, the combs are moldy. If you let it remain in the cellar, everything in the hive will

probably become still more moldy. Better take the hive out of the cellar, and if you haven't a good dry place for it indoors, you can put the hive full of combs under one of them. The bees will do a good deal toward cleaning up the combs, and it can be kept in no better place till the honey harvest begins.

4. If soft maples grow in your region, watch for their blooming, and then take the bees out of the cellar if the weather appears settled. If you have no soft maples, you'll have to depend on other general signs of settled spring weather. Take them out when you feel pretty sure there will not be a week or two of continuous cool weather so they can't fly. You'll have to do more or less guessing about it at best. Try to strike on a good day for putting them out, when the sun is shining, the thermometer 50° or more in the shade, and no wind.

Separators—Dovetailing—Fastening Full Sheets of Foundation—Hive Rabbets.

1. Can there be either one—tin or wood—separators used with follower-board in supers on the 10-frame dove-tailed hive?

2. Is there any machinery now in use for dove-tailing, to make hive-bodies deeper than 9½ inches?

3. Can there be full sheets of foundation put into the sections with the McCartney foundation fastener and section press, or with any of the foundation fasteners?

4. Which is best, or most used by bee-keepers, the tin rabbets, or the wood, such as are cut in the hive, for brood-frames to rest on? R. L. H.

ANSWERS.—1. Yes, the same separators and the same follower can be used in a super on a 10-frame hive as belongs to an 8-frame hive super, provided that in each case the sections run parallel with the brood-frames, and that's the way they run almost universally.

2. I don't know. But I suppose it would be an easy thing to have deeper if there was a call for it.

3. Yes, with any or all of them.

4. Probably the wood are very largely in the majority, because a large part of the hives were formerly made in that way. For some time I think the only tin rests used were those that accompanied brood-frames with metal corners as used in the Simplicity hive. Those were made of a single thickness of tin, and were not adapted to have wood resting upon them. Since the introduction of the rests or rabbets of folded tin, they seem to be more popular, and at the present time probably most hives are furnisht in that way. They are liked better than the wood rabbets because the frames can be moved upon them more easily, and there is less chance for the bees to fasten the ends of the top-bars with bee-glue.

Wintering—Shutting Bees Up—Laying Workers.

1. My bees are too close together in their winter quarters. When will be about the right time to move some of them out on the summer stands, and the cushions off?

2. Last fall I united several of my weak colonies in the dovetailed hives, by setting one hive-body on top of the other. I find all the bees dead in one of the hives in the upper story—starved, with plenty of honey in the lower story. What was the cause of their dying? They were clustered right below the cushion. I put strips across the top of the frames for a Hill's device.

3. Will it be of any value to shut bees up in the hives in the winter, to keep them from flying out when they are warmed up by the sun, when the air is too cold for them? I don't think noise will disturb bees if the hive isn't jarred.

4. Would bees better be shut up in the hives when first put out of the cellar? I always let them have their own way.

5. What is best to do with a colony of bees when they have a laying worker? N. English, Iowa.

ANSWERS.—1. They might stay for some time yet, only the longer they stand after they get to flying the more they will have their present locations fully markt, and the more trouble there may be about their getting back to their own hives. So you may do well to get them on the summer stands somewhere about the first of April, and even earlier if it should promise weather when they can fly every few days.

It may not be necessary to take off the cushions till about the time you want to put supers on.

2. The cause of their dying was just what you say—they starved. There was plenty of honey in the hive to keep them from starving, but if it was out of their reach it might as well have been a thousand miles away. And in freezing weather all honey is out of the reach of bees except that which is right in the cluster. The probability is that you put one hive on the other when it was pretty late in the season. The bees would not go down to where the honey was unless there came a very warm spell, and before that time came they used up all the food they had and then starved. You may still ask why it was the bees of the lower story left it and went into the upper story. Bees are inclined to move upward because heat rises and it is warmer above. When they moved up, the cold weather caught them before they had time enough to carry up enough stores to last them till the next warm spell.

3. No, one of the worst things you can do is to fasten bees in the hive. They'll want to get out twice as bad whenever they find they're fastened in, and the uneasy ones will stir up the others.

4. They should certainly not be left shut up after they are on the stand. If troublesome about flying out and stinging while being carried to their stand, the entrance may be shut up with a very wet rag. You may also give them a little smoke just as you get them out of the cellar. Generally they will stay in their hives without anything of the kind if carefully handled.

5. If the colony is pretty strong, give it a young queen just out of its cell, or a queen-cell just ready to hatch. Perhaps, however, the very best thing to do with a colony that has a laying worker, is to break it up, and give the combs and bees to other colonies.

Drones After Swarming—Cutting Sweet Clover.

1. What part, if any, do drones act in the economy of the hive after the swarm has come out and the young queen has been fertilized? Is it not as well, or better, to kill them off, and save feeding them?

2. Would it do to cut sweet clover the first year for hay? In this country sweet clover gets 18 or 20 inches high the first summer, and if it could be cut for hay then, and again when in bud the next year, and still make fall pasture for the bees, it would be quite profitable from a hay point of view. What I am trying to do is to lengthen the honey-flow in the fall, as we have from four to six weeks after the middle of August that there is nothing coming in. OREGON.

ANSWERS.—1. The only use that has ever been suggested is that they help to keep the brood warm. This, however, will be as well or better done by the same weight of workers. By the time the young queen is fertilized after a swarm has issued, there will be only sealed brood in the hive, and this requires very little care on the part of the bees. Indeed, in ordinary weather at the time of swarming, the sealed brood that is well along will not only hatch out if it is left out of the hive, but will produce heat enough to help keep warm the younger brood. As a rule, you may be the gainer to kill off the drones, but it would be much better economy never to have allowed them to be reared. The best you can do at repressing the rearing of drones, there will probably still be more than enough for all needs. Remember that when left to themselves, each colony will rear as many drones as though no other colony were within a thousand miles, and in an apiary of 120 colonies each colony will rear enough drones for itself and all the other colonies.

2. Sweet clover is one of the late growers, and if cut the first year at any time when the weather is hot enough to cure the hay, it will have plenty of time to recruit sufficiently to pass the winter, and that's all you want. If you can get a growth of 18 or 20 inches the first year (it sometimes grows twice that), by all means take from it a crop of hay. If you have white clover or some other bee-forage that yields during the first blooming of sweet clover, it will pay to cut the sweet clover at or before the time of its budding for bloom, even if the hay should be worthless for stock. For the later blooming may be worth more to you than a crop of hay would be. Of course, it will be still better if the cutting gives you a crop of usable hay.

Couldn't you tell us something about the value of sweet clover for pasturage or hay in Oregon?

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

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GEORGE W. YORK, - Editor.

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Editorial Comments.

Our Advertisers, we believe, are all thoroughly reliable, and perfectly upright in their dealing. If not, we request our subscribers to notify us of any really unsatisfactory cases. We will not advertise for a firm that does not do a square business—not if we know it. We don't believe in helping dishonest people in the least. We are not here for that purpose.

But we believe we can sincerely recommend all who patronize our advertising columns, and we hope our readers will share their business with them.

◆

Getting Supplies Early.—Nearly every season there is loss and unpleasant feelings occasioned by delay in ordering bee-supplies. Many bee-keepers wait until the very day they need them, and then berate the dealer if he doesn't ship by return train. Of course, it is exceedingly annoying to have to wait for goods when you need them at once. But who's to blame? Your dealer can't fill all his orders for the season in one or two days. For that reason, whenever it is possible, you should send in your order several weeks or months in advance, then you will be sure to have them on hand when required.

◆

Directions for Growing Alfalfa.—An agricultural exchange publishes the following about sowing and growing alfalfa:

> Alfalfa seed weighs 60 pounds to the bushel. For a hay crop sow 24 to 30 pounds of seed per acre. For a crop of seed sow 14 to 18 pounds per acre. Sow clean seed. North of the latitude of Washington, D. C., sow alfalfa in the spring as soon as the ground is warm—from the middle of April to the middle of May. Sow in drills or broadcast. In the South and Southwest and in California sow alfalfa in spring or autumn. Sow in drills. In the South sow in drills 16 to 20 inches apart, and cultivate the first season. Do not cover the seed too deep.

◆

A Union for Each Object.—Mr. J. F. McIntyre, in Gleanings, seems to favor having a separate Bee-Keepers' Union for each object which bee-keepers desire to attain. For instance, he would have one Union to defend bee-keepers in their right to keep bees; another, to fight adulterators of honey; another to put down fraudulent honey-commission firms, etc. Yes, why not have a Union to stop bee-keepers from using drawn combs of any kind? And another to prevent their using any other but the divisible, invertible, interchangeable and turn-it-up-and-downsideable hive? Certainly, let's have a Union for each individual bee-keeper, and then *all* be happy!

But, seriously, any one knows that *one* Union could just as well do all necessary work in the interest of bee-keeping as two or more, and save expense. But the amalgamation matter, so far as the existing Unions are concerned, is settled. There is no need to waste any breath over that. So far as we know, everybody was satisfied with the result, as determined by the ballot, and that ended all discussion. The thing to do now is to push the new Union, as the old one has a large bank account—money on interest—and needs no more funds, for its work of defense was practically finisht long ago. About all it needs to do now, whenever trouble threatens, is to exhibit its court decisions and say, "We have a gold-mine of over $500 to fight with, so look out!"

The next thing is to attack honey adulteration and honey-commission frauds. And the new Union will be equal to it.

◆

That Combination Offer on page 170 is a fine one. Perhaps your own Bee Journal subscription is already paid to the end of 1897. If so, just get a new subscriber for the Bee Journal, and have the Samantha book and Woman's Home Companion sent to you or some lady member of your family. The book and woman's paper must both go to the same name and address, but the Bee Journal can be sent to some one else without extra charge. Just look at that big offer again, on page 170. It's one you don't meet with every day.

◆

Benton's "Honey-Bee" Bulletin.—Hon. Geo. E. Hilton, of Michigan, has sent us the following paragraph taken from the Grand Rapids (Mich.) Herald, of March 25:

> "Senator Burrows has introduced a resolution calling for the printing of 20,000 copies of Benton's book on the culture of bees. There has been an enormous demand for this publication of the Department of Agriculture, and as many of the applications have come from Michigan, Senator Burrows introduced his resolution to supply the demand, the regular edition having become exhausted."

Mr. Hilton makes the following explanation regarding the past as well as the proposed edition of the Benton book:

> The regular edition under the statutes was only 1,000 copies. I askt Senator Burrows, about a year ago, to introduce a resolution authorizing the printing of a larger edition, and 20,000 more were printed. He seems to have taken the responsibility upon himself this time, and bee-keepers of the United States should write to their Senators and Representatives in Congress at Washington, D. C., asking them to support the resolution. GEO. E. HILTON.

◆

The Deep-Cell Foundation.—Mr. G. M. Doolittle, always fair, has this to say about the proposed new deep-cell foundation, while his fellow-editor—Mr. R. B. Leahy—in the same March Progressive Bee-Keeper, says he will do all he can against its use:

> THAT WEED HONEY-COMB.—I see in the bee-papers quite a little about the new Weed comb foundation having sidewalls half-inch in depth, or such a matter. I note that some are opposed to it, on the old line of "fishbone," that we used to hear so much about years ago, when comb foundation first came to notice. Now I would like to ask, with all due respect to and for the opinions of others, Is the bee-fraternity any better off on account of section foundation? Hands up. How many hands do you see? Why, nearly, or quite, every one.
>
> Well, then, I wish to say that this new comb is nearer, very much nearer perfection, for what it is intended, than was the section foundation when first put before the public for what that was intended, if the samples I have are any guidance to go by. I have just made a careful test with a sensitive pair of scales, and I find that there is no more resistance at the end of a piece of wire, in the sidewalls of the cells in these samples, than there is in the sidewalls of samples of natural comb that was built during the buckwheat honey-flow last August, and very little more than what there is in

the cell-walls to comb built during basswood harvest. But I find the septum to this high sidewall foundation, or comb, is quite a little thicker, or gives nearly double the resistance that the thin section foundation does, and two-thirds more than the septum found in natural comb built in sections.

But when I come to compare this seemingly thick septum with that of the first thin (?) foundation sent out, I find that the first has four times the resistance that has the septum of this new Weed comb. I, for one, have hailed this high cell-wall foundation, with quite a bit of enthusiasm, and believe that we have arrived at a stage in our pursuit where we as bee-keepers, nor "unscrupulous men," will not tolerate any invention as imperfect as was our first efforts at comb foundation. Nor do I believe the Roots will risk their reputation on anything which will injure the honey markets by pushing it to the front. Caution is always in order, but censure should not be used till there is occasion for it.

There have been several suggestions made that would indicate that a few people think the makers of this new deep-cell foundation are very careless and thoughtless as to the effect the new foundation will have upon the comb honey product in the eyes of the public. Now, we are not here to defend The A. I. Root Co.—they are well able to take care of themselves—but we wish to quote a couple closing paragraphs from an editorial on the subject in Gleanings for March 15. Here they are:

> The brethren must not forget that we had been experimenting with this thing for about a year before we made it public. The quality of the comb honey, and the manner in which the bees accept the comb, have led us to put into it hundreds of dollars. We do not even now claim that we shall be able to put it on the market at such prices as will be within the reach of bee-keepers—the future will have to decide that; but we are in *hopes* we can. And please remember, too, that we consulted *beforehand* some of the brightest and most intelligent bee-keepers in the country, to whom we submitted samples. Among them I may mention such men as G. M. Doolittle, R. F. Holtermann, P. H. Elwood, Dr. C. C. Miller, Hon. George E. Hilton, M. H. Mendleson, Byron Walker, E. Whitcomb, besides all our local bee-keepers. Some of the men saw the machinery, and saw the product in the hives, and the product after it came out.
>
> You may depend upon it, brethren, that we shall not put upon the market anything that will in any way injure the comb-honey business......If we were to do so, we should be doing *ourselves* more injury than any one else—*mark that.*

◆

Growing Sugar Beets.—The Agricultural Experiment Station has arranged with a large number of farmers in representative districts of Illinois to grow sugar beets for the purpose of ascertaining what sections of the State are best adapted to their culture. Realizing that there are many others in this State who are especially interested in the culture of the sugar beet, the Station will furnish, free of expense, to the first 50 who may request it a quantity of high grade seed. The only conditions are that the recipient be primarily interested in the sugar-beet question, and that he is willing to grow the beets according to directions, and at the close of the season to report upon cultivation and yield, and to forward samples for analysis at the expense of the Experiment Station. Any one interested in this will please address Prof. E. Davenport, Director, Urbana, Ill.

◆

Don't You Zee?—It is reported that a swarm of bees coming across a jar of honey tightly closed, held an indiguation meeting. After complaining of monopoly, and so forth, a bright little Italian arose and said: "Rouze up, dagoz; no uze drowzing here, for theirz a thouzand dozzen flowerz to be vizited yet, Zip!" and away they flew. We don't know who reported this, but likely some smart shorthand writer!

◆

The Illinois State Fair for 1897 will be held at Springfield Sept. 27 to Oct. 2, inclusive. For any information concerning it, address W. C. Garrard, Sec., Springfield, Ill. The premium list in the bee and honey department has been very greatly increast. Bee-keepers should be thankful for that, and show their appreciation by making a better exhibit this year than last, if that is possible.

The Weekly Budget.

Mr. Allen Latham, of Norfolk Co., Mass., wrote March 17: "Bees are in excellent condition here."

Mr. W. H. Putman, of Pierce Co., Wis., has returned from his California trip, and reports having had a pleasant time.

Mr. E. B. Weed, the inventor of both the New Process and the deep-cell foundation, is pictured in Gleanings for March 15. He is a very earnest looking man, with plenty of determination.

Mr. E. France, the venerable bee-keeper of Grant Co., Wis., has been giving some interesting wolf-hunting reminisceoces in Gleanings. He was as great a hunter in his earlier days as he has been a bee-keeper in his latter days.

Mr. F. A. Lockhart, of Warren Co., N. Y., is just recovering from a very severe attack of the grip. He wrote March 22 that the 325 colonies of bees belong to F. A. Lockhart & Co., have wintered splendidly, and that they are looking forward to a prosperous season this year. We hope that it may be so.

Mr. David Adams, of Minnesota, wrote us as follows, March 20: "One interested in bees could not but be benefited in reading such a magnificent paper as is the American Bee Journal. Long may she live, and with the return of prosperity I hope its list of readers may be doubled, and thereby make glad the heart of 'ye editor.'"

Messrs. Van Allen & Williams, of Barnum, Crawford Co., Wis., we were very sorry to hear, met with a heavy loss by fire recently. Over 200 colonies of bees were burned, besides other property. On another page of this issue they tell about it. They say they will be fully prepared to care for their trade all right the coming season. We had the pleasure of meeting Mr. Van Allen at the Wisconsin convention, in February, and found him to be a pushing, hard-working young bee-keeper.

Mrs. J. N. Heater, of Columbus, Nebr., we were very sorry to learn, died March 13, 1897, from the effects of anæsthetics administered for an operation just performed at a hospital in Kansas City, Mo. This will be very sad news to her host of bee-beeping friends all over the world, for all who have read the Bee Journal the past dozen years remember her answers to queries in the "Question-Box." Our sincerest sympathy is hereby extended to the bereaved husband, who now mourns the loss of one of Heaven's best gifts—a true and devoted wife.

Next week we will publish a biographical sketch of Mrs. Heater, with picture.

Mr. S. T. Pettit, of Ontario, Canada, father-in-law of Editor Holtermann, of the Canadian Bee Journal, is one of the best known bee-keepers "'tother side of the line." He wrote us recently:

"I am in my 68th year now, and have been a busy worker, clearing land, building, underdraining, and all that, besides church, Sunday school and temperance work."

We had the pleasure of meeting Mr. Pettit at the Toronto convention of the North American Bee-Keepers' Association, in 1895. He is a leader in all good works, including bee-keeping.

The Alsike Clover Leaflet consists of 2 pages, with illustrations, showing the value of Alsike clover, and telling how to grow it. This Leaflet is just the thing to hand to every farmer in your neighborhood. Send to the Bee Journal office for a quantity of them, and see that they are distributed where they will do the most good. Prices, postpaid, are as follows: 50 for 20 cents; 100 for 35 cents; or 200 for 60 cents.

◆

White Clover Seed.—We have quite a quantity of White Clover Seed on hand that we will send you at a bargain. A little of it goes a good ways. It usually retails at 25 or 30 cents per pound, but we will *mail* you 2 pounds for 40 cents, or for sending us *one new* subscriber to the American Bee Journal for a year.

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A Popular Illustrated Botany for the Home and School.

By MARA L. PRATT.

Author of "American History Stories," "Young Folks' Library of American History," etc.

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OF
FLOWERS.
By
Mara L. Pratt

We have no hesitation in saying that you will find it just the book you need to teach about Nature, her flowers and her plants in a common-sense way. How many who have tried to teach botany to the little folks have stumbled over the harsh unsympathetic terms.

Lessons on the ordinary flowers, even, have often been rendered too difficult—much less could one attempt anything like a Flora. But here a complete Flora is given without a hard unscientific term. The common name so dear to children—and to adults, too, for the matter of that—are good enough. For the first time this subject is presented so that it becomes, as it should be, a veritable Fairyland for the little ones.

Hundreds of illustrations of flowers—so necessary yet so scarce in most botanies—adorn its pages, while the charm of Miss Pratt's inimitable style is thrown over all. The pretty poems, legends and stories connected with the children's favorite flowers also find their place within its covers.

It's a handsome quarto book, one you and your pupils will treasure at home, as well as in the school.

Though many illustrations have been added, we shall continue for the present to publish it at the popular price of $1.00.

Our Liberal Offers: We will mail this great Flower Book, postpaid, for $1.00; or for $1.75 we will send it with the Bee Journal for one year; or we wil mail it free as a premium for sending us **Two New Subscribers** ($2.00) to the Bee Journal for a year.

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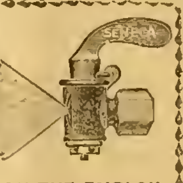

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FOR SALE!

40 acres of land suitable for the growing of oranges, lemons or olives; situated in San Diego Co., Calif., with a well-equipt apiary of 120 colonies of bees in good condition; 3-room house, with good water. Apiary produced over five tons of fine comb honey from 90 colonies of bees in 1895. Price, $2,000.

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From Pure B. P. Rocks, Black Minorcas, Light Brahmas—$1.25 per Sitting. Also, will stuff and mount Birds and Animals to order; price, for small birds and animals 60c. and upward.

Plants for sale cheap—Red and Black Raspberry, and Strawberry.

MRS. L. C. AXTELL,
ROSEVILLE, Warren Co., ILL.

General Items.

Bees Doing Well.

Bees are doing well. I took them out of the cellar about 15 days ago. Success to the American Bee Journal.

Ray Co., Mo., March 23. PETER GALLE.

Have Great Anticipations.

I began keeping bees in 1893, by purchasing one colony, and have increast, by buying and swarming, to 18 colonies, most of which I think I will get through to flower time. It has been quite unfavorable for bees here for the past two years. We were frozen out in the spring of 1895, and drowned out in 1896, but we are looking forward to the season of 1897 with great anticipations for a good honey year, as most things point in that direction.

I would not attempt to get along without the American Bee Journal.

V. F. TAYLOR.
Upshur Co., W. Va., March 16.

Wintered Finely.

We had a very mild winter here—hardly any snow, and not very cold. Bees wintered finely. I like the way Editor York goes after the fraudulent commission-men, and those that adulterate honey. I think Mr. Skaggs' suggestion is a good one, on page 164.

I like the Bee Journal very much, and would not miss it for a good deal.

Where can I get seed of the Simpson honey-plant? GEORGE LACY.
Livingston Co., N. Y., March 19.

[Apply to the seed dealers who advertise in the Bee Journal.—EDITOR.]

Everything on the Boom and Bloom.

Bees here are on the boom. Brood-rearing is going on nicely, but was somewhat backward last week, owing to the temperature taking a drop from 70 degrees, Fahr., to 43 degrees, but it has again risen in the last three days to 81 degrees. Everything is on the boom, from the old Mississippi river to plants and flowers of all kinds. Plums have bloomed, and bees gathered a little nectar from them. Dandelion is beginning to bloom, but the bees do not work on it at all. Peaches are blooming, and bees gather both pollen and nectar from them. The large black or dewberry is blooming profusely in waste places and swamps. White clover is beginning to get white all over with flower-heads, but they do not seem to furnish any nectar until May, when we have some real hot weather, and everything is dry. Sunflowers are springing up, which means a good supply of pollen and nectar about swarming-time.

JAMES B. DRURY.
Orleans Co., La., March 3.

Heavy Loss by Fire.

On March 5, while Mr. and Mrs. Van Allen were away from home, getting their little boy's broken arm drest, the bee-house owned by Mr. Van Allen caught fire in the roof, caused by a chimney burning out. It was not discovered till the fire had made such headway that it was impossible to save the building or any of the contents. There was a strong wind at the time, which carried the flames over the outside cellar-way, so that it was not possible to get into the cellar to save any of the 213 colonies of bees in winter quarters. The loss on the building and contents, including bees, surplus combs, automatic extractors, and other supplies stored there at the time, is $2,300 to $2,500. We were carrying some insurance at the time (we get $900 from that source), which will come quite handy at the present time.

This loss is a hard blow on us, but we wish to say to the readers of the "Old Reliable" that altho we feel a little "bunged," we are "still in the ring." We have one apiary left, from which to supply our queen-trade, till Mr. Van Allen can re-establish his apiary, which he will be able to do by the first of June. He will buy bees as near home as possible, and stock his apiary with queens from the best breeders in this country. He expects thereby to start up with the very best strains of bees obtainable.

Calls for price-lists of extractors have been coming in all winter, but since the appearance of our advertisement in the American Bee Journal, calls have come "thick and fast." Early in the winter we made what we thought was ample provision for our next season's business, but it begins to look as if it was going to hustle us to keep up with the increase of trade.

The prospect for the bee-business in this locality was never better at this time of year. Last night the rain took off nearly all the snow, and today the white clover looks green and fresh.

VAN ALLEN & WILLIAMS.
Crawford Co., Wis., March 19.

A Beginner's Report.

I started last spring with five colonies of hybrid bees. I lost one colony with moths, increast to 13, and took off 220 pounds of honey. I put them into an outer apartment of my cellar, where they are shut off entirely from the vegetable cellar, and where they are not disturbed unless we take a peep at them to see how they are getting along. When the mercury was from 10 to 35 degrees below zero for a number of days, it froze some in their apartment, but when the weather moderated it soon warmed up again. At this writing (March 19) they are all alive and apparently getting along nicely.

I have various styles of hives, obtained of different farmers or bee-men who are not "up to the times." Most of them are one foot high, and of various sizes, generally $17\frac{1}{4}$ inches long and 12 or 14 inches wide, inside. I want to adopt a uniform size, regardless of the ones I have. What size is best? Are eight or ten frame hives to be preferred?

I have about eight acres in berries and purpose to combine bee-keeping with small fruit culture. The hail, however, destroyed my berry crop last year, but I am hoping for better success in the future.

Winneshiek Co., Iowa. JOHN RIDLEY.

[Hives taking a frame the Langstroth size or there about—$9\frac{1}{8}$ deep, by $17\frac{5}{8}$ long—are most generally in use. Experts are not fully agreed which is to be preferred, the 8 or the 10 frame hive. But some think that the majority will finally come to the 10-frame hive.—EDITOR.]

* * *

Honey-Can Caps—Drawn Combs.

I have been tempted several times to enter a protest against the cap of cans in general use for extracted honey. The caps in general use are about one to $1\frac{1}{4}$ inches in diameter, and I would prefer them at least two or $2\frac{1}{2}$ inches, and will give my *why* for so large a cap:

In reducing honey when candied or granulated to a liquid state by heating, the honey expands, and it is necessary to get some out of the can by some means, and to my notion the cap should be large enough to admit with ease a tablespoon or small cream-ladle. I bought, last fall, four cans of honey, and one can was double capt, the larger cap nearly three inches, but three of the cans I could not get a teaspoon into, and therefore it was very annoying. I hope those who practice extracting will insist on manufacturers using larger sized caps on cans for honey.

I am engaged in the production of comb honey, and do very little extracting; unfinisht sections is the only extracting I do, and the past season it amounted to about four cans of 60 pounds each. I therefore have a fair supply of drawn comb in sections for the coming season, which I consider prime stock to carry over, and if I only had it in sufficient quantity I would insure many dollars otherwise lost, not excepting the best foundation yet produced.

We are now expecting, yes, patiently waiting, for the new era—foundation equal to drawn comb is promist. Dr. Miller, like all others, hopes for it. The A. I. Root Co. promises it. Who can doubt we are to enjoy it? So whoop it up all along the line until we get it, and then—but say (don't tell it) nothing yet prcduced by man is equal to comb built wholly by the bee!

J. S. HARTZELL.
Somerset Co., Pa., Feb. 23.

* * *

A Hellish Business.

The Cleveland Journal and Bulletin says that a gentleman of that city attended the meeting of the Ohio State Liquor League, and took down in his notebook the following extract from the speech of one of the officers of the League:

"It will appear from these facts, gentlemen, that the success of our business is dependent largely upon the creation of an appetite for drink. Men who drink liquor, like others, will die, and if there is no new appetite created, our counters will be empty, as will be our coffers. Our children will go hungry, or we must change our business for something more remunerative.

"The open field for the creation of this appetite is among the boys. After men are grown, and their habits are formed, they rarely ever change in this regard. It will be needful, therefore, that missionary work be done among the boys, and I make the suggestion, gentlemen, that nickels expended in treats to the boys now will return in dollars to your tills after the appetites have been formed. Above all things, create appetite."

[The above we take from a recent copy of the Epworth Herald, of this city. Just read those two quoted paragraphs again, emphasizing every word, and see if you think any one need apologize for being the rankest kind of a prohibitionist or anti-saloon man. We hope no bee-keeper can read those fiendish words without resolving henceforth to wage eternal death to the hellish liquor-traffic. We have no boys of our own that the saloon devils can "treat" and destroy, but we are glad to help save somebody's else's boys, if we can, from a drunkards grave and a drunkard's doom.—EDITOR.]

* * *

A Glorious Honey-Year.

As far back as I can remember I never saw such a glorious honey-year as was 1896. During June the white clover blossoms made our pastures look as if they were covered with snow. Bees fairly swarmed in with loads of sweetness that would go to waste if not for them. My average crop of the season was 110 pounds per colony, spring count, or 55 pounds fall count. A swarm that issued June 4, filled two supers of 24 pounds each, by July 15, and closed the season with 87 pounds of comb honey to their credit. My bees doubled in number, as will be shown by my spring and fall count average. They are all wintering nicely on the summer stands. After taking off all surplus arrangements I place back the empty super and raise the cover about 1-12 of an inch, then cover all but the front of the hive with about one foot of straw. Since adopting this plan I have lost but one colony.

I make the hive-stands by setting four short posts 6 feet apart east and west, and 18 inches apart north and south, then I nail two fence-planks, 10 feet long, one to each

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I defy competition in quality and workmanship. **Working Wax** into Foundation when sent to me, a specialty. Write, without fail, for Catalog. My prices are worth looking at. Wax wanted at 26c cash, or 29c in trade, delivered. August Weiss, Hortonville, Wis.
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Dovetailed Cedar Hives
Direct from the Factory. Guaranteed equal to the best goods on the market.
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Dr. Gallup says they are the best he has in his yard
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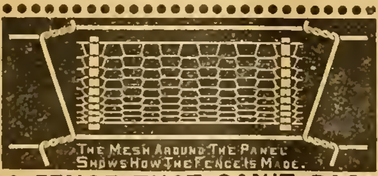
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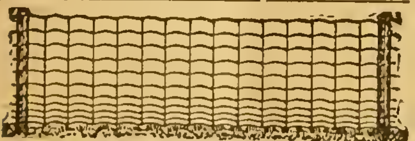

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Years ago a Michigan Farmer commenced using Page fence, and afterwards took an agency. He now boasts that he can travel over 35 adjoining farms without going off "Page Territory." He hopes to furnish two more, thus "filling gaps" and making 42 consecutive farms using Page. You will find particulars in March "Hustler."
PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

row of two posts east and west, nailing the front plunk 2 inches lower than the back one, but making it perfectly level east and west. This gives a slant of 2 inches to the entrance of the hive. This stand holds three hives; there being only four posts, makes it an easy matter to fight ants, simply by putting axle grease around the posts.

Now comes the funny part of my experience: It was with the bee-escape. Following up the directions, I put her, him, or it, on the hive the evening before I wanted to make the raid. I could hardly rest during the night, being so anxious to take off honey without a bee on it! Finally the time came to raise the cover. I must have raised something else, by the way the bees came out. They were madder than ever I saw bees before. (I wouldn't have cared if I had not had three neighbors come over to see how easy it is to work with bees when you are properly fixt!) If I had not been drest as heavily as I was, I would have been properly "fixt," sure enough (by the bees). The escape now hangs on the wall with a list of other curious things.

FRANK B. ATKINS.
Marion Co., Mo., March 2.

Tennessee Bee-Keeping.

The Smoky Mountain system of bee-keeping is in a hollow log, or a box made of plank from 2½ to 3½ feet long, and all of the bees kept in this vicinity are blacks. Some of them are crost a little with the Italian bees, and if they can make enough to live on it is all right, and if they don't their keepers think they are not worth anything, and let the bees starve to death. I tell them I am reading the American Bee Journal and the little book, "Bees and Honey," and that I have learned more by reading them than I could have learned in a lifetime of blundering experiments. I tell them they ought to subscribe for the American Bee Journal. Some of them say it is just a money machine, and others say that I have got the bee-fever. Very good; if the money machine continues for a few years, and my fever continues, I will show the boys who is the bee man.

I have 9 colonies at present. I lost one a few days ago that contained upward of 20 pounds of honey. As soon as I found that they were dead, I drove another swarm into the hive from a colony that I had purchast for 50 cents, which contained 5 or 6 pounds of honey. I never heard of bees being driven in February before. I was successful in driving them; they seemed to be at home, and well pleased with their new location.

It was a poor season last year for bees in this locality. I only got 115 pounds from 4 colonies. It was too wet here. I fed my bees 90 pounds of sugar for winter. On page 36 is an article written by Dr. Gallup, that is worth the subscription price of the Bee Journal. G. W. WILCOX.
Blount Co., Tenn., Feb. 21.

Watering Bees.

Seeing on page 115 something on watering bees, I thought I would tell how I water mine. I take a plank 6 feet long, 1½ inches thick, and 16 inches in width; in this I bore holes with a 2-inch auger a half inch apart, and ¼ of an inch deep, with gutters from one hole to the other the same depth. These holes are bored within 18 inches of the one end, leaving room to set a barrel, or half barrel, as described further on. I lay this board on a solid foundation made of wood or other material, perfectly level sidewise, but lengthwise one inch fall in 6 feet, or just so the water will pass from the supply.

Now I saw a good barrel in two, and set this on the upper part of the board, with a faucet in it near the bottom of the barrel. I then can regulate the water to one drop every four seconds, more or less, as occasion may require. I put in the barrel floats of wood or other material, to keep the bees from drowning. In the spring, when the morning is cold, I fill the holes direct with

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Bee-Supplies! ROOT'S GOODS at Root's Prices.
Pouder's Honey-Jars, and every thing used by bee-keepers. Prompt service, low freight rate. Cat. free. Walter S Pouder,
162 Mass. Ave.,
INDIANAPOLIS, INDIANA.
WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

☞ IF YOU WANT THE
—BEE-BOOK
That covers the whole Apicultural Field more completely than any other published, send $1.25 to Prof. A. J. Cook, Claremont, Calif., for his
Bee-Keeper's Guide.
Liberal Discounts to the Trade.

LUNG DISEASES.
30 years' experience. If your case is sufficiently serious to require expert medical treatment, address
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HATCH Chickens BY STEAM—With the MODEL EXCELSIOR Incubator

MODEL EXCELSIOR

Simple, Perfect, Self-Regulating. Thousands in successful operation. Lowest priced first-class Hatcher made.
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114 to 122 S. 6th St., Quincy, Ill.
Circulars free. Send 6c. for Illus. Catalogue.
44A26t *Mention the American Bee Journal.*

Early Italian Queens
Up till the middle of April at these prices:
Untested, 75c.; Tested, $1.25.
E. L. CARRINGTON,
5A17t De Funiak Springs, Fla.
Mention the American Bee Journal.

Yell, O Yell, O'YELLOWZONES
Yellowzones for PAIN and FEVER.

boiling water, when I think the bees will fly. By the time the bees come out, it is nearly right, and they will come with a vengeance. But it will not be long till I can fill the barrel.

On the other end of the board I set a 4-quart basin ⅔ full of water. I then go to the woods for some moss that usually is found at the bottom of trees, and lay this on top of the water in the basin. Then I get a large handful of salt and sprinkle it on the moss, and in due time it is black with bees. If I think it is too strong I add more water.

I fed last summer as high as 28 quarts of water in one day, to between 50 and 60 colonies. There is no drowning of bees; if one happens to fall into the water, she has only to kick and she is on "dry ground" again. The cost is $1.40.

I want to say "thanks" to the editor of the Bee Journal for his many advices in regard to fraudulent concerns. I have in my possession very interesting letters from Horrie and Wheadon, wishing me to sell my honey, but on looking in the American Bee Journal I could not find their names among the advertisers, so I thought I would hold on. Then I beheld the next week that the sentinel sounded the alarm. I wrote to Wheadon declining to sell my honey to him. I may have made more than will pay for the Bee Journal for 20 years.

I am down on the adulteration of honey. Long may the editor live the Bee Journal, if he continues to expose frauds. I believe he will reap his just reward if he faints not.

JACOB MOORE.

Ionia Co., Mich., Feb. 27.

* * *

Coming Through in Good Condition.

My bees are coming through in very good condition. I am looking forward to the time when I can work with them.

I do enjoy the American Bee Journal very much. There is a great deal of valuable information in it.

FRANK D. KEYES.

Hampshire Co., Mass., March 21.

* * *

Getting Bees into the Sections.

When I have more time, I will tell you my experience with the Hoffman reduced-depth (7½-inch) frame. I have 2,000 of them in use up to the present, with more to follow. I confine myself almost exclusively to comb honey production, and use two brood-chambers for breeding purposes up to the time when the honey-flow begins, when I remove the one, replace with a super of sections, and I tell you I have no occasion to waste my time to coax the bees to enter the sections, for they never fail to go. So whenever I read of section-baits, etc., I cannot help but smile.

You are doing good work, Mr. York, and I am pleased to indorse your fearless method in opposition to frauds and charlatans.

CALIFORNIA.

* * *

Working on Soft Maple.

Spring is on hand. Bees are working on soft maple, and the fields are taking on their green attire.

A. A. BALDWIN.

Jackson Co., Mo., March 19.

* * *

Value of Salt in Bee-Keeping.

Having used salt for several years, for many things in caring for the bees and honey, with such good results is my excuse for offering it for publication.

Salt is the best deodorizer for a cellar that I have ever found, as it leaves the cellar sweet and healthy for the bees. After the bees are out, and the dead taken up, and everything not belonging there is taken out, then cover the cellar bottom all over with a coat of salt, a fourth inch deep, or nearly that, and leave it there to dissolve. Two or three applications are sufficient to cleanse the cellar, and make it as fresh and sweet as a cellar that is just built. Where the floor of the cellar is made of wood, the

Page & Lyon Mfg. Co. New London, Wisconsin,

Operates two sawmills that cut, annually, eight million feet of lumber, thus securing the best lumber at the lowest price for the manufacture of

Bee-Keepers' Supplies.

They have also one **One of the Largest Factories** and the latest and most-improved machinery for the manufacture of

Bee-Hives, Sections, Etc.,

that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polisht on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equipt with best machinery, all combine to enable this firm to furnish the

Best Goods at the Lowest Prices.

Send for Circular and see the Prices on a Full Line of Supplies.

Please mention the American Bee Journal. 7Atf

HARNESS FROM $5.00 UPWARDS.

This cut shows our $5.50 Harness which we make a specialty of and DEFY COMPETITION

CARTS and BUGGIES

BARKLEY $10.00 ROAD CARTS and upwards. For Style and Finish they can not be surpassed.

BARKLEY $55.00 BUGGIES a Specialty. We guarantee satisfaction.

We also manufacture a complete line of GOAT and DOG HARNESS from $1.50 to $12.50 per set. GOAT or DOG CARTS from $4.00 to $7.00. Write for GOAT CATALOGUE.

Read our book of voluntary Testimonials from our customers and see what they think of Barkley Goods and Business Methods. It will pay you to do so.

For 22 consecutive YEARS we have manufactured and sold to dealers, BUT NOW we are selling direct to consumers, saving you the traveling man's expenses and dealer's profit. Write for illustrated catalogue and prices.

BARKLEY $70. PHAETON

BARKLEY $152. CARRIOLET

FRANK B. BARKLEY MFG. CO. GARDEN CITY BLOCK, CHICAGO, ILL.

BEE-KEEPERS We make The Very Finest Line of **SUPPLIES** in the Market, and sell them at Low Prices.

Send for Free Illustrated Catalog and Price-List.

G. B. LEWIS CO., WATERTOWN, WIS.

Special Agent for the Southwest—E. T. ABBOTT, St. Joseph, Mo.

Mr. Abbott sells our Hives and Sections at Factory Prices.

Finest Alfalfa Honey!

IT SELLS ON TASTING.

The Honey that Suits All Who Buy It.

Low Prices Now!

We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 7½ cents per pound; 2 cans in one case, 7 cents; 4 cans (2 cases) or more, 6½ cents. The Cash MUST accompany each order. **Fine Basswood** Flavor Honey at same price; also in 270-lb. barrels.

☞ A sample of either honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

GEORGE W. YORK & CO., 118 Michigan Street, CHICAGO, ILL.

salt will preserve the wood, and make a lasting job, and also a clean floor.

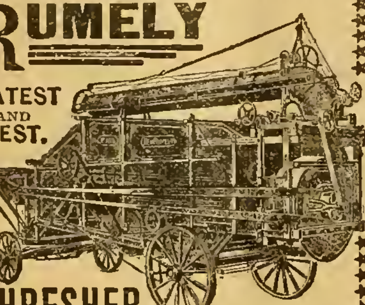
Again, I use salt to tell me when the atmosphere is too damp in the room for the safety of my crop of honey, from July to October. One or two small dishes of salt—a tea-saucer is all right—are filled about two-thirds full of fine table-salt, and are placed on the pile of honey, and all I have to do is to keep the salt dry, for as long as dry and crumbly, your room is all right. Whenever you find the salt damp, or little drops of brine above the saucer, where little particles of salt have lodged, you may know that a fire is needed at once to dry out the room.

I use salt in front of all my hives to kill out the gruss, so that every colony has a clean front yard of their own, with no alighting-board to get out of place, as every hive sets flat on the ground, on a loose bottom-board.

Again, I use salt to scrub my kitchen floor when it gets grindy, as a few quarts of coarse salt scattered over the floor when quite wet, and thoroughly workt with a broom, will give the floor a fresh appearance, the same as it does on brass or copper when corroded.

Bees appear to be in fine condition up to date, but have another month to stay in the cellar yet, unless this spring proves an exception. IRA BARBER.

St. Lawrence Co., N. Y., March 11.



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LATEST AND BEST.

THRESHER

When you buy a Thresher be sure to get the one that will thresh cleanest, fastest; simplest, best built; will last the longest, and needs least repairs. The new Rumely Separator, with Uncle Tom's Wind Stacker and New Rumely Engine, satisfies all users and has all of these points and more that are explained in new Catalogue.—Sent for the asking.

M. RUMELY CO., LA PORTE, IND.

Mention the American Bee Journal.

TO REDUCE STOCK !

5 per cent. Off

On all Kinds of Supplies

During March.

☞ Orders amounting to $5 or more will be delivered f. o. b. cars Springfield, Ills.

W. J. Finch, Jr., Chesterfield, Ills.

10A13t Mention the Am. Bee Journal.

AGITATORS THAT AGITATE

keep the liquid always stirred to a point of utility.

The DEMING AUTOMATIC

combines more good qualities than any agitator on the market. Used only on the DEMING SPRAYING OUTFITS. Spray with Bordeaux Nozzle, "The World's Best." Handsome 40-Page Book on Spraying sent free on application.

THE DEMING CO.
SALEM, OHIO.
HENION & HUBBELL,
General Western Agents,
61-69 Jefferson St., Chicago.

5C5t *Mention the American Bee Journal.*

" Queens Given Away."

Gray Carniolans and Golden Italians.

We will give a fine Tested Queen (either race) to all customers ordering 6 Untested Queens, and a fine Select Tested Queen to all who order 12 Untested Queens at one time. The Queens given away will be sent to customers in August.

Grade and Prices of Bees and Queens	April May June	July Aug. Sept.
Untested Queen	$ .75	$ .65
Tested "	1.50	1.25
Select Tested Queen	2.50	2.25
Best Imported "	5 00	4.00
One L Frame Nucleus (no Queen)	.75	.50
Two " " "	1.50	1.00
Full Colony of Bees " (in new dovetailed hive)	5.00	4.00

We guarantee our Bees to be free from all diseases, and to give entire satisfaction.

Descriptive Price-List Free.

F. A. Lockhart & Co., LAKE GEORGE, N. Y.

13Dtf Please mention the Bee Journal.

ONE MAN WITH THE UNION COMBINATION SAW

Can do the work of four men using hand tools, in Ripping, Cutting-off, Mitring, Rabbeting, Grooving, Gaining, Dadoing, Edging-up, Jointing Stuff, etc. Full Line of Foot and Hand Power Machinery. Sold on Trial. Catalogue Free.

SENECA FALLS MFG. CO.,
46 Water St SENECA FALLS, N. Y.

1A1y *Mentio.. the American Bee Journal.*

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PENN AVE. AND EIGHTH ST.

PITTSBURG, PA.

Thorough Courses — Normal, Commercial, Ladies Literary, Shorthand and Typewriting. Efficient and experienced instructors. Day and Night sessions. **Send for Catalog.**

Prof. LEWIS EDWIN YORK, Pres.

JUST ARRIVED!

My first carload of Goods from **The A. I. Root Co.** has arrived, and I am in shape to fill all orders promptly at their catalog prices. Send for my 36 page catalog; also list of Goods you will need, and I will make you special prices on early orders.

GEO. E. HILTON,

9D9t FREMONT, MICH.

Beeswax Wanted for Cash

Or in Exchange for

Foundation—Sections—Hives or any Other Supplies.

Working Wax into Foundation for CASH A Specialty.

☞ Write for Catalog and Price-List, with Samples of Foundation and Sections.

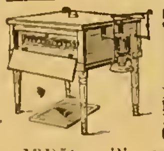
GUS DITTMER,
AUGUSTA, WIS.

Mention the American Bee Journal.

ROOT'S GOODS. Get discounts on early orders for 1897. A. I. Root Co.'s Bee-Supplies always on hand. Better prepared than ever to fill orders promptly. 36-page Catalog free.

JOHN NEBEL & SON, High Hill, Mo.

Mention the American Bee Journal. 4Atf



SAUMENIG!

HATCHERS are made on best lines and of best material known to incubator art. They cannot fail. HEATS WITH HOT WATER! Hatches every egg that can be hatched. Send 2 stamps for catalog No. 59 INVINCIBLE HATCHER COMPANY, SPRINGFIELD, OHIO.

13D5t Please mention the Bee Journal.

Convention Notices.

Texas.—The next annual meeting of the Texas State Bee-Keepers' Association will be held at Greenville, Wednesday and Thursday, April 7 and 8, 1897. All are cordially invited to attend.

Utah.—The Utah State Bee-Keepers' Association will hold its semi-annual meeting in the City and County Building, Salt Lake City, April 5, 1897, at 10 a.m. All are invited to come and bring your friends. A full program in the interest of the industry will be presented, among other subjects to be considered being the best method of marketing our products, and how to best protect the bees from foul brood and other diseases. In union is strength, and by industry we thrive. The Association needs your aid; then let all do their full duty, for their own interest and for mutual benefit and self-preservation.

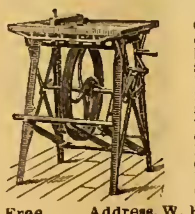
Salt Lake City, Utah. E. S. LOVESY, Pres.

* * *

Mr. C. N. Bowers, Box 73, Dakota, Ill., is now mailing his Poultry Annual and Book of Valuable Recipes for 1897, finely printed in colors, giving cuts, descriptions, and prices of 45 of the leading varieties of fancy fowls, with important hints on the care of poultry, and hundreds of recipes of great value. Over 1,000 premiums won at the leading shows. Prices reduced one-fourth. One of the finest books out. Price only 10 cents, postpaid. He will return money if not satisfactory. Do not fail to get it, as the book contains $10 worth of information. Please mention the American Bee Journal when writing.

* * *

A Carload of Utah Honey is in the hands of Pres. E. S. Lovesy, 355 6th East St., Salt Lake City, Utah. It is No. 1 honey, and the whole will be shipt from there at 5½ cents a pound for the extracted, and 9 cents for the comb honey. Any one interested can write Mr. Lovesy.



Barnes' Foot-Power Machinery.

Read what J. I. PARENT, of CHARLTON, N. Y., says—"We cut with one of your Combined Machines, last winter 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will. Catalogue and Price-List Free. Address, W. F. & JOHN BARNES, No. 995 Ruby St., Rockford, Ill.

45Ctf

TO BE HUNG !

OUR SHINGLE is now hung out, notifying the public that we are again **ready to ship Queens.** Having greatly enlarged our facilities, can fill orders **by return mail.**

Golden Beauties, 3 Band Italians Also Silver-Gray Carniolan.

Warranted Queen, 50c.; Tested, 75c. Make Money Orders payable at Caldwell, Tex. Send for Catalog of **Bee-Keepers' Supplies.**

Address, C. B. BANKSTON,
11Atf CHRIESMAN, Burleson Co., TEX.

The RURAL CALIFORNIAN

Tells all about Bees in California.

The Yields and Price of Honey; the Pasturage and Nectar-Producing Plants; the Bee-Ranches and how they are conducted. In fact the entire field is fully covered by and expert bee-man. Besides this, the paper also tells you all about **California Agriculture and Horticulture.** $1.50 per Year; Six Months, 75 cents. Sample Copies 10 cents.

THE RURAL CALIFORNIAN,
218 N. Main St., - LOS ANGELES, CALIF.

BEE-KEEPERS ! Let me send you my 64-page Catalog for 1897.

J. M. Jenkins, Wetumpka, Ala.

Mention the American Bee Journal.

FOR SALE **At Beeville, Tex.**—200 Colonies of first-class Italian Bees. $600 cash, to close out. Address,

10A4 **S. A. LEEDS, Avery Island, La.**

HONEY and BEESWAX

MARKET QUOTATIONS.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

Chicago, Ill., Mar. 19.—Fancy white, 11@12c.; No. 1, 10@11c.; fancy amber, 9c.; No. 1, 7c.; fancy dark, 8c.; No. 1, 7c. Extracted, white, 5@7c.; amber, 5@6c.; dark, 4½c. Beeswax, 25@27c.

Stocks are working down, but there is no improvement in price. The season for comb honey is drawing to a close. Any one intending to market in the cities should do so now.

Albany, N. Y., Mar. 20.—Fancy white, 12-13c.; No. 1, 11-12c.; fancy amber, 9-10c.; No. 1, 8-9c.; fancy dark, 7-8c.; No. 1, 6-7c. Extracted, white, 5-6c.; dark, 3½-4c.

Demand is all that could be expected at this season. Stock on hand small.

Indianapolis, Ind., Feb. 20.—Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Boston, Mass., Feb. 20.—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Cleveland, Ohio, Feb. 20.—Fancy white, 14½@15c.; No. 1 white, 12½@13c. Extracted, white, 6@7c.; amber, 4½@5½c. Beeswax, 22@25c.

There is not very much honey in our market. Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

St. Louis, Mo., Feb. 19.—Fancy comb, 12@@13c.; No. 1 white, 11@11½c.; amber, 9@10½c.; dark, 7@8½c. Extracted, white, in cans, 6@7c.; amber, in barrels, 4@4½c; extra, 5c.; dark, 3@4c. Good demand for barrel stock—comb slow sale. Beeswax, 23@23½c.—prime finds ready sale at 23½c.

San Francisco, Calif., Mar. 17.—White comb, 9-10c.; amber, 5-7c. Extracted, white, 5-5½c.; light amber, 3½-4c.; dark tule, 2¾c. Beeswax, fair to choice, 24-26c.

Philadelphia, Pa., Feb. 2.—Fancy white comb, 12-13c.; fancy amber, 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3½-4c. Beeswax, 25c.

Season is getting over for comb honey—very little demand. Extracted in good demand.

New York, N. Y., Feb. 20.—There has been a little better demand for comb honey during the last two weeks. Prices, however, will not improve, as the season is too far advanced and plenty of stock laying on the market. We have a good demand for extracted buckwheat, candied, and bee-keepers having their crop on hand yet, should now market it.

Beeswax is quiet at 26-28c., according to quality.

Cincinnati, Ohio, Mar. 22.—Demand is slow for all kinds of honey, with a fair supply. Comb honey, 10@13c. for best grades; extracted, 3½@6c. There is a fair home demand for beeswax, with a fair supply, at 22@25c. for good to choice yellow.

Kansas City, Mo., Mar. 22.—No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 9@10c.; No. 1 dark, 8@9c.; Extracted, white, 5@5½c.; amber, 4½@5c.; dark, 4c. Beeswax, 22@25c.

Detroit, Mich., Mar. 12.—No. 1 and fancy white comb, 11-12c.; other brands, 7-10c. Extracted, white, 5-6c.; amber and dark, 4-5c. Beeswax, 24-25c.

Minneapolis, Minn., Feb. 20.—Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Buffalo, N. Y., Mar. 19.—Demand is somewhat better for honey, although we advise marketing everything and cleaning it up. Strictly fancy comb, 1-pound, 10-11c.; other grades 9-5c., as to quality, condition, etc. Extracted, 4-5½c., as to kind and quality.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN,

Kansas City, Mo.
C. C. CLEMOMS & Co., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
WILLIAMS BROS., 80 & 82 Broadway.

St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.
S. H. HALL & CO.

Milwaukee, Wis.
A. V. BISHOP & CO.

Boston, Mass.
E. E. BLAKE & CO., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. MCCULLOCH & CO., 380 Broadway.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central avs.

Honey - Clovers !

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
Alsike Clover	$ .70	$1.25	$3.00	$ 5.75
Sweet Clover (white)	.60	1.00	2.25	4.00
White Clover........	.90	1.60	3.75	7.00
Alfalfa Clover.....	.60	1.00	2.25	4.00
Crimson Clover....	.55	.90	2.00	3.50

Prices subject to market changes.

Add 25 cents to your order, for cartage, if wanted by freight.

Your orders are solicited.

GEORGE W. YORK & CO.,
CHICAGO, ILLS.

One Cent invested in a postal card will get my large Catalog of All Root's Goods. Send list of what you want, and get price.

M. H. HUNT, Bell Branch, Mich.

WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

PATENT WIRED COMB FOUNDATION

Has No Sag in Brood-Frames

Thin Flat-Bottom Foundation

Has No Fishbone in the Surplus Honey.

Being the cleanest is usually worked the quickest of any Foundation made

J. VAN DEUSEN & SONS,
Sole Manufacturers,
Sprout Brook Montgomery Co., N. Y.

Mention the American Bee Journal.

Read —TESTIMONIALS— Read

E. T. FLANAGAN, Belleville, Illinois—
Dear Sir—The Queen I received from you last year beats any Queen I ever saw. If I ever need more Queens I now know where to get them. Yours truly, M. SMISCUNY,
Dealer in Bees and Honey.
Brentwood, Ark., May 2, 1896.

E. T. FLANAGAN, Belleville, Illinois—
Dear Sir—The 4 3-frame Nuclei and 1 full Colony I bought of you last May, all arrived in excellent order and have done exceedingly well, considering they had a journey of over 2,000 miles to reach my place in Idaho. Three of the Nuclei gave a large natural swarm each, and, in addition, stored over 100 pounds of surplus comb honey each. The other one did nearly as well. The full Colony swarmed also, and stored over 200 pounds of splendid comb honey in one-pound section-boxes. I now have 9 good, strong colonies with plenty of honey to winter on, and have taken from them over 500 pounds of choice comb honey. I am well pleased with my venture.
Yours truly, B. F. WHITE.
Dillon, Montana, Jan. 5, 1897.

E. T. FLANAGAN, Belleville, Illinois—
Dear Sir:—One of the 3-frame Nuclei I got of you on May 8, is ahead of anything I ever saw. Yours truly, H. W. SAVAGE.
Baraboo, Wis., June 3, 1896.

E. T. FLANAGAN, Belleville, Illinois—
Dear Sir:—From one of the 3 frame Nuclei I got on May 8, 1896, I have had 5 good swarms, one of which got away to the woods. I reared 13 splendid queens, and got 69 pounds of No. 1 comb honey from it; besides plenty of honey to winter on. Can that be beat? I shall want about 35 Nuclei for myself and about 25 for other parties in the spring. Yes, sir, I am well satisfied.
Yours truly, H. W. SAVAGE.
Baraboo, Wis., Jan. 10, 1897.

E. T. FLANAGAN, Belleville, Illinois—
Dear Sir:—The bees and queens I got of you last season were very good, and pleased me very much. They are beauties, and splendid workers. Yours truly,
E. C. HASKETT.
Palestine, Ill., Jan. 10, 1897.

E. T. FLANAGAN, Belleville, Illinois—
Dear Sir:—I have bought Bees and Queens for the past 24 years from all parts of the United States, and I never received any that gave me greater satisfaction than the Nuclei and Queens I received from you. They are gentle and great hustlers, and as long as I am in the bee-business I will give you all my orders for Bees and Queens. You can book my order now for 4 Nuclei to be delivered the coming spring. Yours truly,
Kingman, Kans. J. W. YOUNG.

Mr. Young has bought Bees and Queens from me for a number of years.

The above are only a few samples of reports from Bees and Queens I have sold. I have been nearly 20 years in the business, and it is a real pleasure to please and satisfy my customers.

☞ See small adv., and cut this out as it will not appear again. **Send for Catalog** to

E. T. FLANAGAN,
Box 783 BELLEVILLE, ILL.

Mention the American Bee Journal.

—I Would Like to See a Hive—

That bees will build up in faster in the spring, or that is better adapted for Comb or Extracted Honey, or that is easier manipulated than mine. It is Cubical and Self-Spacing. Patented April 7, 1896. Hives and Rights for sale. Address,

CYRUS C. ALDRICH,
13A4t ELSINORE, Riverside Co., CALIF.

Mention the American Bee Journal

For Sale Cheap During 1897.

Italian Bees and Queens, and Root's Bee-Keepers' Supplies. Address,

OTTO KLEINOW,
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37th Year. CHICAGO, ILL., APRIL 8, 1897. No. 14.

BIOGRAPHICAL

MRS. J. N. HEATER.

Last week we gave but a simple annoucement of the sudden and unexpected death of one of our best loved of women bee-keepers—Mrs. J. N. Heater, of Columbus, Nebr. This week it is with a sad heart that we record some of the particulars concerning her departure, and somewhat of her devoted life and labors. Permit us to say that for much of our information we are indebted to the enterprising newspapers publisht where Mrs. Heater lived and labored.

About three months ago Mrs. Heater left her home to go to Kansas City, Mo., to spend the winter. She was apparently in the best of health, and when on Saturday, March 13, a dispatch was received that she had past away at 4 o'clock that morning, it created a great shock in the community where she was so well known and beloved by all.

The funeral services were held at the family residence, Tuesday, March 16, the Rev. A. L. Mickel, of the Methodist church officiating, with hundreds of friends of the deceast present to pay their respects and extend condolence to the bereaved husband.

The particulars of the death are very sad. An operation had been performed on Mrs. Heater for some ailment, and was considered successful, but the administration of the necessary anaesthetic had a bad effect on the patient's system, and she was taken down and continued to sink until the end. On Friday night, Mrs. Heater could not sleep, and towards morning, Mr. Heater, who was at her bedside, said to his wife: "Shall I sing to you? Perhaps it will put you to sleep." The suffering one nodded assent, and Mr. Heater softly sang a favorite song, and she seemed to drop into a gentle sleep, but, alas, the watching husband soon found to his sorrow it was the sleep of Death.

Mrs. Heater was born in Defiance county, Ohio, March 5, 1856. Her maiden name was Annie E. Case. She came to Nebraska in 1875 with her parents and settled in St. Edward, Boone county. She was married to Mr. Heater September 6, 1876, and in July, 1878, they took up their residence in Columbus.

Mrs. Heater was a woman of amiable disposition, warm hearted and of generous sympathies. She was kind hearted, a good neighbor, a loving wife, and merited the good will of all with whom she was acquainted.

Before her marriage, Mrs. Heater taught school in Indiana and Nebraska. About 15 years ago she embarkt in the bee-business as a source of employment in the absence of her husband, whose business called him away from home most of the time. For many years she was the leading exhibitor of bees and honey at the State fair. She was one of the distinguisht bee-keepers of Nebraska's bee and honey display at the World's Fair. She enjoyed the distinction of being the "Bee-Queen of Nebraska." In bee-literature Mrs. Heater was known far and wide. She was on the "Question-Box" staff of the American Bee Journal for a number of years, and many of her contributions on bee-culture have been publisht and widely circulated.

In this sad hour, Mr. Heater has the tender sympathy of a host of friends who well know the loss he has sustained.

It was our good fortune to meet Mr. and Mrs. Heater at the World's Fair convention, in 1893. Both Mrs. York and the writer were wonderfully drawn toward them, as we felt that in them we had found two true and noble persons.

At the Lincoln convention, last October, we again had a very pleasant meeting with both Mr. and Mrs. Heater. We distinctly remember walking from the hotel to the convention hall with Mrs. Heater, one morning, her husband having some business to attend to that forenoon. Mrs. Heater was so cheerful, so hopeful, and talkt on about her prosperous bee and supply business, her property interests, her home, church work, and busy life in general.

Mrs. J. N. Heater.

Her paper on "The Past and Future of Bee-Culture," read at that meeting, was a bright gem. It will be found in full in the publisht report.

But Mrs. Heater is gone. No more will her sweet voice and winsome ways bless our conventions, or her intelligent pen grace the pages of our literature. But the memory of her life and loving deeds will ever remain, to encourage us all to be more faithful, more true, more Christlike.

THE EDITOR.

⁂

Spring Work Among the Bees.

BY W. M. BARNUM.

The long winter's sleep is now over, and the bee is herself once again. Those colonies wintered on the summer stands should now be cautiously examined. It may be that a little feed, given inside of the hive, will save a colony from starvation and death. It frequently happens that the dead bees will become molded together in large lumps, and it is well to remove these putrid masses as early as it may safely be done. Many of the dead bees may be removed through the entrance by the use of a crooked wire or stick. This same advice holds true with the bees in the cellar, tho it is well to use the utmost care not to disturb or break the cluster of bees. Much heat and vitality is thus lost.

By the time this appears in print it will be time to take out the cellar bees, selecting a nice, warm and sunshiny day, with little or no wind. In the spring bees require large quantities of water; it frequently happens, in early spring, that they are compelled to go to to the creek or to some quiet, ice-covered pond, and in filling themselves with the ice-cold water they become so chilled that many fail to ever reach the hive. To avoid this, I place a few wooden pails or dishes filled with warm water at convenient places in the bee-yard; putting in a few wooden floats, that the bees may be enabled to keep on a more or less "secure footing." Avoid tin or glass dishes, as the slippery sides will bring about the destruction of many a bee's life.

If there be any snow yet upon the ground, do not fail to scatter a little straw about—more particularly in the immediate vicinity of the hives.

Inasmuch as dampness within the hive is greatly detrimental to the comfort and welfare of the bees, particular care should be taken that the hive-covers are tight and waterproof. If the hives are far enough apart, to avoid danger of blowing off, a shade-board well weighted down, will keep the hive nice and dry. And this moves me to say that a shade-board is an indispensable article in every well-regulated apiary. It is also important that hives be firmly and squarely fastened to a base-support elevated some six or eight inches from the damp and cold earth. A free air-space beneath is preferable for evident reasons.

If you can find the time, level up the apiary, marking out the paths, etc. This work pays in more ways than one, and should not long be neglected.

Arrangements for the coming profitable season should now be completed; have everything in readiness so that no time may be lost when time becomes valuable in a pecuniary sense. This is good management, and absolutely essential to a proper measure of success.

I spoke earlier in this article, of encouraging the bees in early spring by feeding a little syrup. This must be done with the utmost care. If a robber-bee gets even the smallest taste, she will soon raise a disturbance in the apiary that will be apt to try the temper. Indeed, I have known this to end in the total extermination of a good, strong colony; and to have given the whole apiary a set-back that a month had hardly cured.

Again, if feeding is regularly continued for any length of time, and then suddenly discontinued—before flowers begin to yield—it is very apt to cause the bees to become discouraged, and end in their tearing out and killing all brood that had been started. So it is well to go at this with care and proper caution. In many instances it will save a colony from starvation, and is therefore a necessary evil, in all respects.

A little rye-flour in a sheltered, sunny nook will answer for pollen, if that is slow in coming forth. Upon these little things many of the larger things depend.

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Honey-Vinegar Again—Questions Answered.

BY C. P. DADANT.

The following has been sent me for reply in the American Bee Journal:

"MR. C. P. DADANT—*Dear Sir:*—I saw in the discussion on making honey-vinegar at the bee-convention held in Chicago some time ago, Mr. York made the statement that you manufactured it to some extent. I have a little dark honey I would like to manufacture into vinegar and would like to get your mode of operation, if you feel free to give it. What I wish to know more especially, is, whether hard or soft water may be used, kind and quantity of yeast per 40-gallon barrel, how to clarify with isinglass, etc.—L. JONES."

Our method for making honey and wine vinegar was given at length in the first number of the Bee Journal for this year.

We believe that the kind of water used is immaterial. We would, however, if practicable, use soft water in preference to hard water; but the amount of mineral usually found in hard water would not, in our opinion, affect the making of the vinegar.

We do not use any yeast, because we have at all times found enough fermentable matter in the honey that we use, especially if used in connection with grape-juice or the juice of almost any kind of fruit. But yeast may be used if it is necessary to start the fermentation at a season of the year when nothing can be had that will start it. As we have never used any yeast, we cannot give our own experience in regard to it. By referring to authorities on beer-making we find that they use about a pound of hop yeast to each barrel of liquid. This proportion would evidently be applicable to vinegar; since the liquid has to pass through the same stages of fermentation as beer does. Acetic fermentation can only follow the vinous, or alcoholic, fermentation, and is only perfect in as much as the other has been complete. The two may take place in the same liquid at the same time; but the vinegar thus made is not to be compared with thoroughly fermented juice, as it is sure to remain turbid for a long time, and contains saccharine elements as well. It would, however, do, in this condition, for sweet pickles, but such pickles could not be kept in an air-tight vessel, as the fermentation, which would continue slowly, would cause expansion and would burst the vessel. Let it be remembered that the most important thing in inducing fermentation in honey-water, or fruit-juice, is a proper temperature. I quote from the Encyclopedia Britannica:

"The range of temperature most favorable to this process lies between 20° and 24° centigrade, or 68° and 75° Fahrenheit. Even grape-juice does not ferment at temperatures lying too close to the freezing point, nor does it ferment at temperatures exceeding a certain limit, which lies about 60° centigrade, or 140° Fahrenheit."

I do not wish to be understood as criticizing the above, from one of the most responsible encyclopedias in the world, but I would say that we have seen the most active fermentation, with our *must*, at about blood heat. Much depends upon the outside temperature. The higher it is, the lower may be that of the fermenting liquid, and *vice versa*. In cold weather we would want to heat our honey-water to 120° or about.

Let the reader bear in mind that nearly all sweets contain elements of fermentation. We can quote the same authority above named to prove that "cane-sugar, or honey, when added to grape-juice, ferments with the sugar originally present in the latter."

Wine must, wine lees, or even a little beer, will usually be sufficient to start a fermentation in honey-water at the proper temperature. If plenty of air is given, the acetic fermentation will begin just as soon as the other is complete, and *often before*.

Remember that the stronger the liquid is, the stronger the vinegar will be, altho there is a limit beyond which it would be impossible for all the honey to transform itself. We would place this limit at three pounds of honey per gallon of water, more or less.

Clarifying is a process that we have never needed, our customers having never complained of the looks of our vinegar. But if very clear vinegar is wanted, this process will be found very useful:

To be ready for clarification, vinegar must be *made*, that is, it must have no more alcohol in it, or the continuation of fermentation would again cloud it. First, rack it by drawing it off the lees as carefully as possible. Then heat it carfully to 140° to 175°, in order to destroy the vibrions (vibro aceti), of which I have spoken in previous articles, and which could not be precipitated until they are killed. After this, the vinegar may be easily clarified. We would use the white of eggs in preference to anything else; because we know what they are. Four eggs are sufficient for a barrel. Separate the white from the yolk in the usual way, then beat the eggs with about a quart of water, adding a little salt, and pour this preparation into the barrel of vinegar. Enough must have been removed from the barrel to enable the operator to shake, or stir, the liquid, so as to mix the eggs thoroughly with the vinegar. The best way is to mix with a stick that will spread it evenly in liquid. Let it stand 10 or 12 days, then draw it off the sediment.

The egg acts exactly as the isinglass, or fish-glue. The gelatin contained in it is coagulated by the action of the foreign substances, and forms a net-work which is slowly precipitated to the bottom, dragging along with it the impurities contained in the liquid.

If isinglass is used, according to the "Maison Rustique," which has long been an authority for us, the quantity should be about an ounce for a barrel of 45 to 50 gallons.

Should there be any point not thoroughly ventilated in this vinegar question, we will ask the readers to bring it forward while the matter is fresh in the minds of the subscribers.

Hancock Co., Ill.

Golden's Comb-Honey Management.

BY J. A. GOLDEN.

Dr. C. C. Miller has askt me to answer the following questions from a South Dakota subscriber, relating to my method of comb-honey production :

"1. Do you make the brood-chambers with the bee-space to match the bee-space of the super, thus making a continuous passage from the bottom to the top of the super, or supers ?

"2. Are the bees permitted to pass to and from the brood-chamber to the double super during the first five days after swarming ?

"Do you keep the queen caged inside the section-cage ?—L. A. S."

ANSWERS.—1. Yes, certainly, the bee-space must be maintained from the bottom on up, matching each super as tiered up, and a bee-space at the top of the brood-chamber entering at the top of the brood-frames, also at the top of the supers. I will just add for the benefit of those desiring to test my method : Take two single supers and tack on the little cleats at each end of the side. Then tack on a strip of thin lumber flush with the bottom, and extend ¼ or ⅜ of an inch above the top of the super—some prefer a ¼-inch bee-space over the brood and sections in place of a ⅜ ; then tack on top of the ends of the super a strip, making it as high as the side. Fold strips of tin the width of the super, and tack on the bottom of the end of the supers, letting them in the wood a little so the supers will fit when set on each other. This tin rest is for the section slats to rest on. Put the slats and sections in, and set one on top of the other, and tack a couple of slats up and down at each end, which holds them together. Now you have the bee-space from the bottom of No. 1 to the bottom of No. 2, and enters between supers ; also from the bottom of No. 1 to the top of No. 2, and enters supers at the top of No. 2, and when the cover is on, a bee-space over the top of the sections. The side bee-space should not be less than ⅜ of an inch.

2. Yes, the bees have full sway to go where they can do the most work all the time. Having secreted wax for comb-building, you will soon find that the new swarm has stored you a beautiful lot of section honey instead of brood-combs. See ?

3. Yes, the queen is put into the section-cage by springing up the wire-cloth at one corner of the cage, and remains there during the five days. Having placed the cage in one of the upper rows of sections, on the fifth day cut all queen-cells, place the parent hive on the bottom-board, super on top, and let the queen run in at the entrance with a puff or two of smoke. Then keep tiering up.

I also will add that before setting the super on top of the brood-chamber, lay a strip of wood under the ends of the brood-frames, sufficient to raise the frames even with the side of the hive proper, thus giving bee-space above the frames, and the bees can't reach the bottom when entering the hive and scamper for the side entrances. Morgan Co., Ohio.

⁂

Bees and Fruit—Coddling Moth Eggs Not Laid in the Bloom.

BY E. S. LOVESY.

This is still a subject of much interest and agitation between bee-keepers and fruit-growers. If all our fruit-growers understood this matter thoroughly and correctly, there would be no need or cause for trouble, and there is no earthly reason why any person interested should not understand the subject intelligently; but unfortunately at present they do not, hence the trouble.

Altho it is 25 years or more since the first coddling moth larva was introduced into Utah through the importation of fruit and shingles, yet prior to five years ago there was no agitation on the subject, but about that time the trouble commenced. Bills were framed and introduced into the legislature by the dozen without any respect or regard for the bees or bee-keepers, and, strange as it may seem, it was almost the universal opinion that no good could be accomplisht unless the spraying was done on the bloom. In two instances the professors were pitted against us, and while they sympathized with the bees they contended that the spraying must be done in the bloom, or no beneficial results would be obtained. This belief became so strong that the conclusion was reacht by many that either the fruit or the bee industry must go, as there was no possible way to reconcile them. It was the universal belief that the moth laid its eggs in the bloom, and unless the trees were sprayed in the bloom the embryo fruit would grow over the tiny larvæ, and that they would eventually eat their way out. Thus the trees should be sprayed in the bloom, and if the bees could not take care of themselves they must take the consequence.

Of course the bee-keepers viewed with dismay this state of affairs, but by organizing with the fruit-growers, the bee-keepers controlled the balance of power, and, as a rule, they protected their bees ; only in a few instances did those foolish theories prevail, and then the bee-keepers paid dearly for other people's ignorance. This occurred two years ago, when several thousand dollars worth of bees were killed, myself being a heavy sufferer ; and when I remonstrated against the party doing the mischief, he said that he lost 200 colonies of bees in New York State the same way, and while he felt sorry for us he thought it was no harder on us than it was for him !

The reason that many of our bee-keepers suffered two years ago was because the matter was left with the different county courts and county fruit-tree inspectors ; thus, those believing in blossom spraying caused trouble. Some counties strictly forbade spraying in the bloom, while others so ordered it. One county issued a proclamation ordering eight sprayings. In some instances, spraying twice during the bloom, and some of our bee-keepers were threatened with the law because they refused to poison their own bees. I advised our bee-keepers to stand firm in this matter, and not only refuse to spray in the bloom, but if they could prove that any persons had poisoned their bees we would sue them for damages. These eight sprayings referred to—five of them were put on before the first coddling moth larvæ were found in the county ; the other three were put on before and during the month of July. Then they stopt while the moth continued their operations nearly two months later, destroying the greater portion of the apple crop, while other counties that put on four sprayings, commencing about the middle of June, saved considerable of their fruit.

I started in almost alone five years ago to fight this popular error—for such it has been—and I was just as positive then as now, that it was an error, and from the experiments and observations that I have made of late years, I can assert without fear of contradiction that no coddling moth eggs were ever laid in the bloom.

I had noticed more or less for 10 years before this blossom spraying agitation commenced, that the coddling moth always laid their eggs on the apples until the first cold storm in the early fall. This put me to thinking. I askt our fruit-growers if they thought it could be possible for Nature to provide an insect that would deposit a portion of its eggs on the petals of the blossom, and then continue through the summer to deposit the balance of their eggs on the fruit. To try and throw some light on the subject, I commenced a series of experiments, and I discovered what may appear to some, one or more secrets. I took the larvæ into the hot-house or green-house in the winter and early spring months. I found that by keeping the temperature up to about 60° from the time the moth hatcht out they would lay their eggs, which would hatch out and the larvæ would bore into the fruit, mature, and eat their way out, spin their cocoons and hatch out as moth again in about six weeks ; and by raising the temperature to about 70°, the whole process could be accomplisht in about five weeks.

I also demonstrated that if the temperature was dropt far below 60°, the moth would not hatch out, and when hatcht out with the same low temperature, the moth would not lay their eggs, and in about two weeks or so they would die off without laying their eggs. This was also demonstrated here two years ago in the open air. There was a warm spell in May, and many moths were hatcht out, and this was followed with about three weeks of low temperature, and the moth died off without laying their eggs, so that there were no wormy apples to speak of before July. As the trees will blossom out at a considerable less temperature than 60°, they are always in bloom before the moth hatches. This has been proven here in Utah for years. In parts of Wasatch and other counties the trees bloom and bear fruit, yet no coddling moth or larvæ can or do live even if imported there, because the temperature is too low for them to live or exist.

Now, if any one doubts the above statements, let him demonstrate the matter for himself, and if he experiments while the trees are in bloom, he will find that while the moth will lay their eggs on the fruit, they will not do so on the blossoms.

One thing more : I have noticed the larvæ do not always bore into the apple at the spot where the egg is laid. The egg is very small, so that it is very hard to locate, but after finding it, if we mark the location we will find that sometimes the tiny larvæ will move some distance, and if it finds any other object touching the apple—such as a leaf or another apple—it will usually commence boring into the apple at that point, or if it strikes the calyx it will bore in there, as it is an easy place for it to get in. And thus some think the egg was laid in the blossom, when in all probability it was not laid for a month or six weeks after the tree was in bloom.

Now, while I have not an over-abundance of faith in the success of the spraying question, if the tiny larvæ is to be caught with poison at all, it should be on the fruit when it hatches out from the egg; it will thus get caught as it moves over its surface. But as it is impossible to catch all the larvæ this way, if our fruit-growers expect to succeed they should try to adopt some plan to capture the moth and also the larvæ as they leave the fruit to seek a place to spin their cocoons. If this can be accomplisht, then success will be assured.

The experience that I have had here the past three or four years has shown the people that with this blossom spraying they have not only thrown their time and money away, but besides killing the bees they destroyed much of the fruit, by washing the pollen out of the blossoms The owner of an orchard from which my bees were killed, admitted that the parties drencht his trees to that extent that they destroyed the fruit, and he had to depend upon a neighbor for fruit who did not spray at all. I could give many illustrations of this kind, but it is not necessary, as I know this can be done. Also a heavy rain on the bloom will sometimes destroy the fruit. This is one reason why we sometimes have a profusion of bloom and but little or no fruit or honey.

While I find that there is still much agitation in some parts of the country over this spraying question and the bee-industry, here in Utah I believe that we can congratulate ourselves that we are now about safe out of the Slough of Despond, and we can calmly look back over the battle fought and the victory won. We feel to thank our esteemed friend, Prof. A. J. Cook, for when the struggle was so desperate that we could scarcely keep our heads above water, I wrote to him, and received the following:

> "MR. E. S. LOVESY—*Dear Sir:*—Say to your people that the coddling moth do not lay eggs until the blossoms fall. Say also that the poison is slowly removed, so that it is never wise to apply it till necessary. Thus to spray before the blossoms fall is unwise, to say nothing of its effects on the bee. No one should spray until the blossoms all fall. Policy and justice alike affirm this. Yours truly, A. J. COOK.

This had the desired effect, and was of material benefit to us.

Now while we were just as sure, five years ago, that we were right on this spraying question, as we are now, to convince the fruit-growers of these facts was the all-absorbing topic.

My object in writing on this question is in hopes that the subject may be thoroughly investigated and settled to the satisfaction of all concerned. If all were intelligently informed on this matter, it would be absurd to even think of any antagonistic feelings between the bee-keepers and fruit-growers in regard to fertilization of fruit-blossoms by bees. A proper knowledge of this question is of more benefit to farmers and fruit-growers than to bee-keepers. Then let us hope that the much-desired reconciliation of these industries will soon be an accomplisht fact. Salt Lake Co., Utah.

Something on Wintering—The Prospects.

BY J. A. PEARCE.

Our bees are wintering better than ever before. I have 42 colonies in the cellar under the living room. They were put in a little after the middle of November, exceedingly heavy, having built up strong on buckwheat. None of the colonies have spotted their hives yet, and I cannot discern that they are perceptibly lighter than when put in. I shall put them out in about two weeks, or as soon as the ground-hog comes out, or as soon as I can get say two still, sunny days, so that the bees can have a good flight, for I consider that leaving bees in the repositories too long in the spring has been the most prolific cause of what is known as "spring dwindling," which is nothing more nor less than the old bees all dying off before any new ones are hatcht, thus letting the colony "go up," and bringing into disrepute cellar-wintering. I have not the least doubt that hundreds of thousands of colonies of bees might have been saved, that have been lost, if they had only been removed from the repository three weeks or a month sooner.

Let me explain a little: Suppose I leave my bees in till the middle of April, as has been recommended by the best authorities; and the queen does not deposit any eggs, as she should not in confinement if she is a well-behaved queen, "according to the books." Then the first week of May will be gone before I have any young bees, and another week will elapse before they would be of much use in the field. We have our peaches in bloom about the first of May, the cherries and plums a little before that, and the apples soon follow. So you can readily see where "we would be at" at such a time with only a few old bees, or perhaps with none of the old ones—all having had to succumb before the new ones began to appear.

The wintering problem has no terrors for me. I have yet to have my first loss since I have practiced the plan that I now pursue, and have for some eight years. I learned it from the American Bee Journal, from a discussion that was carried on between James Heddon, of this State, and the Rev. W. F. Clarke, of Canada. Mr. Heddon took the pollen theory and Mr. Clarke the hibernation theory.

I did some things last year that I never did before in putting in my bees. First, I saw that the cellar was rid entirely of mice. Then in closing the hive-entrances, as formerly, with pieces of lath, I closed them this time with wet sand; it was noiseless, and easily scraped away in the cellar. Then I had two entirely green hands at the carrying rack, and I told them if they would lift the hives gently the bees would not "wake up," but if they shook them up much they would likely get out and all over them. You may be sure they were careful. I carried them from the top of the cellar myself, so still that they scarcely knew they were being moved. They had just had a good flight, and I rusht them in before or just as it was beginning to freeze. This I think is essential to good wintering, as they have had a chance to empty themselves, and are placed in before they fill up excessively again.

Our prospects are fair for this year. The plentiful rains of last fall started up the white clover, and we have had abundance of rain this winter—6½ inches in January—and no weather so far to injure in the least the clover; and with our bees as strong as they are, we should be able to take some of it in!

My best wishes are for the "Old American," that brings us a variety of news from the length and breadth of the land. It tells us of a young lady in Minnesota looking at her bees in a foot and a half of snow; while another in Florida is doing a land-office business among the flowers of that sunny land. It lets us know how our old friend, Prof. Cook, is enjoying the lovely climate of Southern California, while we, with an ulster buttoned tightly about the throat, are buffeting this biting March wind, or are indoors toasting ourselves by a good oak fire. Kent Co., Mich., March 8.

Various Experiences with Bees.

BY EDWIN BEVINS.

To-day (March 19) the bees are flying freely, and investigating almost everything in sight. Yesterday I had some corn ground for cattle feed, and some of the meal was left on the platform under the mill. Soon after the grinding ceast I noticed a cloud of bees over that platform. This morning I placed a large pan, partly filled with corn meal, on top of a hive in the midst of the apiary. Now there is a great rolling and tumbling of bees in that meal, and a great hurrying to and fro of bees from hives to pan and from pan to hives.

Last season, just before swarming-time, I sent two of my big hives, each made to hold 10 Quinby frames, to a neighbor, with the understanding that he was to hive me two early swarms, if he should have them. Each hive had six frames full of foundation. The foundation in one hive was new, and put in about the time the hives were sent away. That in the other hive had been put in a year before, and left in the hive, as it was not needed. I did not go after the swarms till sometime in November. It was my intention, when I sent the hives, to fill up with frames of foundation in mid-summer, but that was a matter that was neglected. When I went after the bees I found that the colony in the hive having the new foundation had filled the six frames solidly full of brood and honey, and then gone to the other side of the division-board and filled the empty space there full of honey. How much more room this colony needed I had no means of knowing.

The bees in the other hive had refused to touch the old foundation, but they had filled the space on the other side of the division-board with comb in which was some honey, but not enough, I thought, to support them till spring. I had no frames of honey to give them, and it was late for feeding sugar syrup, so I removed the frames of foundation and put in a lot of unfinisht sections close up to the division-board, and told the bees to "root hog or die." February 17, at the close of a long, cold spell of weather, I lookt in and found these bees very numerous, and very lively. I gave them feed on top of the combs, and removed the unfinisht sections. I mean to build this colony up right in the hive it now occupies, and as I have only foundation, and no drawn comb to work with, I presume it will take considerable time to get the bees onto new, straight combs, and get rid of the irregular combs they now occupy. These combs are not attacht to anything at the top. They were attacht to the enamel cloth at first, but got separated when I brought them home.

Late last fall I found myself with a strong 3-frame nucleus, which I feared would not winter on the honey contained in the three frames. Having no frames of comb to give them, I placed 11 unfinisht sections of honey on the other side of the division-board. February 17 I found these 11 sections entirely cleaned of honey, and the bees numerous and in excellent condition. I gave them a new supply of unfinisht sections, and now I am going to begin to feed and fill up with frames of foundation. This nucleus was protected by a chaff cushion in an empty super on top of the hive, and the hive packt on three sides with about five inches of straw. This is the way I protect all my bees. Some of my outer cases have bottoms, and some are without bottoms. Bottoms are not necessary. Entrances are left as in summer, except in the case of a nucleus or weak colony. It is then contracted a half or more. I have never lost a colony protected in that way, that had a queen and plenty of honey or sugar syrup. There has been just one exception to this rule, which exception I told the readers of the American Bee Journal about, not long ago.

I said that I protected *all* of my bees in the way above described. I wish to modify that statement a little. Some half-dozen colonies in large hives were left last fall without any protection except the chaff cushion in the empty super. These were so strong in bees and honey that it would take an unusually hard winter to kill them, but I believe it would have been better for them if they had been given more protection. One excessively strong colony, on nine frames of standard length in a hive 12 inches deep, was left in the fall without outside protection. When the severe cold weather of January came, I noticed a good many dead bees in front of that hive, and I had to clear the entrance frequently. Then I made an outer case and gave the bees the usual protection of five inches of straw on three sides of the hive, and the mortality ceast. With this exception but few bees have died in my hives the past winter.

I have been intending to work for extracted honey more than usual the coming season, but I shall have to reconsider. The market reports do not afford much encouragement to any bee-keeper who lives in a white honey locality, to spend his time producing extracted honey.

LATER.—To-day (March 22) I examined that 3-frame nucleus, and found the bees had cleaned out their second supply of 11 unfinisht sections of honey, and there was a good deal of honey in the sections, too, as there also was in the first lot given. I gave the bees a frame of foundation and another lot of sections containing honey, and concluded this to be the most piggish lot of bees I ever owned. If they do work next summer in proportion to their appetites, I shall get a good deal of honey.

Some persons may, perhaps, fear trouble from mice where straw is used for protecting hives in the manner I have described; but it is a matter of fact that I have had but very little trouble on account of mice getting into the hives. If one is careful in cutting entrances they can be cut so shallow that mice cannot enter, or, if one uses hives having ⅜-inch strips to form the entrances, the entrances can be narrowed by strips of zinc or wire-cloth. A cat belonging to one of my neighbors kindly came and made her home in the bee-yard last fall, and staid until the weather got too cold for her comfort.

Decatur Co., Iowa.

White Clover Seed.—We have quite a quantity of White Clover Seed on hand that we will send you at a bargain. A little of it goes a good ways. It usually retails at 25 or 30 cents per pound, but we will *mail* you 2 pounds for 40 cents, or for sending us *one new* subscriber to the American Bee Journal for a year.

The Names and Addresses of all your bee-friends, who are not now taking the Bee Journal, are wanted at this office. Send them in, please, when sample copies will be mailed to them. Then you can secure their subscriptions, and earn some of the premiums we have offered. The next few months will be just the time to easily get new subscribers. Try it earnestly, at least.

CONVENTION PROCEEDINGS

Proceedings of the Colorado State Bee-Keepers' Convention.

REPORTED BY F. L. THOMPSON.

[Continued from page 198.]

The Secretary's and Vice-President's reports were then read:

THE SECRETARY'S REPORT.

The past season has been about the poorest we have ever had, in the northern part of the State, while the bee-keepers of the southern and western portions have had a very satisfactory crop of honey, as you see by the statistics gathered.

During the last annual session a number of very good resolutions were past by this Association, but part of them could not be carried out on account of lack of funds, and the resolution in regard to marketing was found to be not required, as most of the members had a very small crop of honey to sell, and competition among dealers made it unnecessary.

The past summer I requested Senator Teller to procure for our Association a number of copies of the Government Bulletin on "The Honey-Bee," for our members, and such other books, etc., as might be useful in our industry. It was my plan to start with this a small library in this building for the use of bee-keepers, and combine with the same a collection of articles of interest to them.

FRANK RAUCHFUSS.

THE VICE-PRESIDENT'S REPORT.

Members of the Colorado State Bee-Keepers' Association:—

Our meeting records the passing of another year. It is with saddened hearts that we learn of the death of one of our esteemed members—Rev. F. O. Blair, of Trinidad.

With some of our members it has been a prosperous year, with others a very disastrous one. Yet with all our discouragements there is something bright ahead, and we have something to be thankful for. If we have prospered let us be willing to tell our co-workers how our success has come. If we have not succeeded, let the failure be known; perhaps some one can give a remedy.

Co-operation is the sign of civilization. We find that in all business enterprises there are so many interested in the same thing that without some intelligent co-operation we are apt to clash in our undertakings, and both parties are injured by the result. At our annual meetings there is always much to do, and a short time to do it in. Please let every one be prompt, so that the time may be well and profitably filled.

Notwithstanding a large per cent. of our members have had a failure in realizing a heavy crop, yet we find our market in a poor condition, which shows plainly when we all have a good yield we must look outside of our State for a market, for a large share of our product.

This makes it quite essential to keep up our Association with all the vigor possible. We have a committee looking after improving our foul brood law. They have done good work, as you will find by the report. We should all be watchful that this law is not repealed without giving us a better one. The present law has certainly been a great benefit to the State. At the rate the disease was spreading before we had the law, the honey-business would have been destroyed, and a great revenue to the State would have been cut off.

There is still another enemy to our business I would call your attention to. There is a cry coming from every part of the Union against adulteration. We have every reason to believe that there is much sweet sold for pure honey in our market that is not honey. In looking through our groceries this winter I found more than usual. Some is put up in our own city. Another brand is from St. Joseph; another from Omaha.

They all have an appearance and taste that brands them as not being pure honey. I have a sample here I purchast last February. It is put up by a Denver firm. I would like to have you examine it and give your opinion whether it resembles alfalfa honey in appearance or taste. This honey has stood in a dry pantry since that time. The parties that put up this article claim to have apiaries in different parts of the State. They also claim to be dealers in honey. In making inquiries I am not able to find where they have any such apiaries, or where it was offered. Has any member of this society ever sold them a pound of extracted honey? In a paper called "The Active Member," for January, 1896, we found an advertisement of theirs which claims they are extensive apiarists, and their production is 20 tons annually. Now we have no evidence that they have the above apiaries, or that they produce such an amount of honey, or that they appear on the market to buy any such amount. If they have not produced or bought this honey, and their output is 20 tons, then it must be true they have sold something for honey which is not honey. If so, they have done an injury to the producer as well as the consumer. If they are large apiarists as they claim, we would be glad to give them the hand of fellowship. If they are large dealers as they claim, we most certainly wish to give them our patronage. If they are neither, we wish to give them our condemnation, and let the consumers have the benefit of our opinion.

I am told that glucose made from corn can be laid down in Denver for about 2½ cents a pound, and this is the article used in adulteration. If this be true, with the many drawbacks we have in bee-culture, it is impossible to compete. I speak of this at such length because I believe it is a great injury to our business, and at this time to urge our legislature to pass a Pure Food Bill such as they have in Ohio.

W. L. PORTER.

Mr. A. W. Fisk then addrest the Association in behalf of the American Fruit Growers' Union. He said this Union accomplisht the equitable distribution of the produce of its members all over the country; that they had 22 salaried agents, each under $500 bonds, who kept them informed of the condition of the market at all points, so that they never sold to a glutted market. Ten per cent. commission is charged. Individual shippers obtain a rebate of 2 to 4 per cent. They wish to take up the honey question, having had many demands for honey. To illustrate the unequal distribution of produce, Mr. Fisk stated that Denver has 160½ per cent. of fruit to population, Chicago 113 per cent., and Philadelphia only 8½ per cent. What the Union does is to sell to customers in Baltimore, for example, at the same prices as in New York. Being askt by the Secretary whether this Union had any connection with the Citrus Association, he replied that it had not. The Citrus Association wisht to affiliate, but their methods did not commend themselves to the Union. The Lima Beans' Association has just affiliated.

In the afternoon, Mr. R. H. Rhodes being in the chair, a committee was appointed, consisting of W. L. Porter and J. B. Adams, to secure a place for a bee-library and exhibit. They reported that a place could be had both in the Natural History rooms and in the Horticultural rooms. Mrs. Martha A. Shute was then added to the committee, which was instructed to continue carrying out the plan. The suggestions were made that if once a case was provided, the rest would follow naturally; some bee-keepers have books and magazines which they would be willing to donate; specimens of a piece of foul-broody comb, disinfected and put under glass, of the two species of wax-moth, of honey, the finest sections, bees, queens, brood, comb, implements and inventions, and anything out of the usual line, would be added, and would be the best kind of an advertisement. Mr. Porter said that in his experience such things attracted more attention than fruit.

In answer to a question in the President's report, Mr. Thompson said he had sold the Denver firm a small amount of extracted honey—some five or six cans.

Mr. Booth and Secretary Rauchfuss were appointed to draft a resolution on the death of Rev. F. O. Blair, of Trinidad. The following was adopted:

WHEREAS, It has pleased the Giver of all Good to remove from our midst our dearly beloved brother, the Rev. F. O. Blair; therefore, be it

Resolved, That while we bow in humble submission to the will of the Divine Master, yet we keenly feel the loss of our beloved friend and associate; and be it further

Resolved, That we, the members of this Association, sincerely sympathize with the bereaved friends and relatives who are left to mourn his death, and that our tears shall be mingled with theirs.

Resolved, That a memorial page be set aside in our proceedings in memory of our departed brother.

LEVI BOOTH, } *Committee.*
F. RAUCHFUSS, }

A resolution by Mr. Booth was adopted, that thanks be extended to the Board of Horticulture for voting to print the apicultural reports, and that the efforts of the Association be added to theirs to get the legislature to adopt the measure.

Mrs. Shute gave notice that as a committee of the Horticultural Board she was then copying a Bill, a committee from the Bee-Keepers' Association should be appointed to frame a section prohibiting the spraying of fruit-trees in bloom, and also embodying the resolution past by the Board of Horticulture to print the proceedings of the Bee-Keepers' Association together with their own. Mr. Thompson was appointed.

Mrs. Shute further stated that as Secretary of the Horticultural Board she would not cut the apicultural reports any more than the Horticultural reports; that the essays would have to be cut most, but the discussions could be given more fully. The report should be an especially extended one in its statistics.

Mr. Booth spoke of his effort, in the Horticultural meeting, to get the horticulturists to pass a resolution that one member of the Horticultural Board should be a bee-keeper. He thought it would have past if some of the bee-keeping horticulturists had not been absent.

The presence of Senator West, of Jefferson county, for a few moments, was made the opportunity to impress on his mind the opinion of the Association that the foul brood law ought not to be repealed. Mr. Booth said that no inspector's bill had exceeded $200, and that bee-men had been saved an immense amount of money. Mrs. Booth called attention to the fact that the bills of some were very small indeed—thus J. B. Adams' bill this year amounted to $4.20; and that of another inspector was $10. Mr. Rhodes said that he lost over $1,000 by not having a foul brood law in former years. He was satisfied that the inspector of Jefferson county had done fairly good work, and that the county had been greatly benefited.

Senator West, in reply, said that as far as State appropriations were concerned, nothing would prevent his efforts to aid the Association; but that when it came to his own county, he would be very conservative. There is a great disposition to lessen expenses, and many ornamental boards will doubtless be dissolved. But he would do nothing to weaken worthy objects of such associations as those of the bee-keepers, horticulturists and dairymen.

It was decided to continue the officers of the Association without an election. This makes the officers of the ensuing year as follows:

President, R. C. Aikin; 1st Vice-President, W. L. Porter; Secretary, Frank Rauchfuss, of Elyria; Treasurer, Mrs. R. H. Rhodes; Member Executive Committee, R. H. Rhodes.

REPORT ON "HONEY" SAMPLES.

The samples of honey brought by the committee for that purpose were exhibited.

One of these was put up by the West Virginia Preserving Co., and stated on the label to be 20 per cent. honey and the rest corn syrup.

Another, purchast of the Windsor Grocery, of Denver, and stated by the clerk to be pure, was labeled "Mississippi Valley Clover Honey, Springdale Apiary, Coulter Manf. Co., Agents, St. Joseph, Mo., U. S. A."

It was of an amber color, and had a strip of comb honey in it, about an inch wide and four inches long.

Three others were put up by Frisbee & Son, of Denver. Two of the latter were quite light-colored, and one was rather dark. They were labeled "Alfalfa Clover Honey. We warrant every jar absolutely pure."

Another sample bought for comparison, put up by a bee-keeper near Denver, was declared pure by members of the convention.

This, with the sample labeled 20 per cent. honey, and one of Frisbee's light-colored jars, together with another sample of Frisbee's honey, were opened and tasted by members of the convention, some visitors, and a reporter of the Denver News. The other samples were left unopened, with the intention of getting them analyzed. All but the two samples pronounced genuine were somewhat thinner than honey usually is. The following discussion took place:

Vice-Pres. Porter—The reason I attack the firm I referred to in my address is, that they tell the grocers that honey will not candy, and that candied honey has sugar in it. They claim they can talk bees as well as any of us. They keep an advertisement in a Christian Endeavor paper, and mail a copy to all grocers. They have two colors of honey, so they can say it was gathered from different kinds of flowers. In one issue of a bee-paper they say, "Our markets are flooded with California honey;" whereas we know there has been no California honey in the market for several years. In the next issue they talk about keeping up prices, and make believe they are a great honey house. We have not evidence enough as yet to prosecute. Can we tell through the daily papers what we think? We ought to do something.

H. Rauchfuss—I move we pass a resolution requesting the publishers of the bee-paper giving their quotations to stop them, and add the reasons.

This resolution was carried by a unanimous vote.

H. Rauchfuss—I move that a committee be instructed to select proper persons to whom the samples shall be sent, and have them analyzed. Carried.

[Concluded next week.]

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Queen-Excluders Under Supers.

I am going to work for extracted honey. Is it advisable to put a sheet of queen-excluder over the brood-chamber, so as to keep the queen down and avoid the possibility of brood in the combs when I uncap to put in the extractor?—W. R. A.

Answer.—If you try both ways, you will probably decide that you like the use of the excluder better than without. Then you're sure to have no brood in the way when extracting. Another important item in the opinion of many—an opinion that is constantly gaining ground—is that honey extracted from old combs that have been used for breeding is not as good as that from combs that have never been so used. Take an old comb out of the brood-chamber, fill it with water and let it stand a few days, then see how the water has been blackened. If the black matter gets in the water, will it not get into the honey? It may not be worth while to use queen-excluders when working for comb honey, but working for extracted is quite another thing. The point is just here: If your queen will stay below of her own accord you don't need any excluder, but if she will not then you better use an excluder.

Growing Sweet Clover for Hay.

I have noticed several articles in the Bee Journal on sweet clover referring to dates earlier than when I first began taking it. I want to know how to grow it, and if it will answer as hay for fodder to fatten sheep in the winter as a part of their rations? C. A. C., New York.

Answer.—To get a stand of sweet clover, treat it the same as red clover. It seems harder than red clover to get a start, but you'll be perhaps surer of a stand if you have the ground pretty hard, or if the ground is soft let the seed be covered pretty deep. The trouble is that if the ground is soft and the seed not very deep, the young plants will heave in the winter.

If cut the first year, or before blossoming the second year, it ought to make good hay to form part of the rations for sheep, but remember it is like Alsike, in that stock must learn to like it.

What Ails the Bees?

Last December I bought at a sale 5 colonies of bees, brought them home and placed them in the yard in as near the same position as they were placed in the man's yard where I bought them. When we had our first cold weather and snow, the bees became dissatisfied and came out of the hives in large numbers, but never would return; piles were lying dead before the hives. A neighbor advised me to take them to the house. We have a large house, so I took them upstairs and gave them a room by themselves, where they would not be disturbed. All went well until now, and they are repeating the same thing they did out-doors after the cold snap. We examined the hives and they seem to have plenty of honey, and there seems to be quite a number of bees in the hives.

1. Do the bees want water? or are they diseased? I am afraid they will die off so that we will not have enough left for a start in the spring.

2. What time will be best to move them out of the house in the spring.

3. Is the way I have them housed a good one?

4. Do bees rear new brood in the winter, or would they be apt to be queenless, as all the colonies are alike in their actions. I never had any bees before, and know nothing about them. G. B., Peru, Ill.

Answers.—1. From the description you give, it isn't possible to give any very positive answer, but it is quite likely that the dead bees you saw on the ground were those that had accumulated for some time and were carried out the first time it was warm enough. Lots of bees may die through the winter from old age in a strong colony, and no harm come. It isn't likely that they are suffering from want of water.

2. See answer given to D. W. S. If the bees appear very uneasy, then you may have to risk a little more, and take them out the first warm day, even if you think cold weather may come after it. Still there is a pretty fair chance for good weather soon.

3. As a rule, it is not a good way to have bees in a room in a dwelling house. While you do confine them there, better keep the room perfectly dark.

4. No brood is reared through the winter until in February, and sometimes not till well along in March. Of course there are cases of queenlessness, but it isn't likely that several colonies together would be queenless.

Placing Hives Close Together—Seven Frames in an 8-Frame Hive.

I got 10 colonies of bees, keeping them in a shed winter and summer. The shed is three feet high, and the front is made with a door which I let down in summer or nice days in winter.

1. How far apart ought the hives to be in the working season so that they don't interfere with each other?

2. Is it necessary to have 8 frames in an 8-frame hive, or would seven do just as well? I run for section honey and thought if I had less frames I would get more honey in the sections or would'nt the bees do so well with seven frames?

We had a poor season last year, but we look for a good honey crop this year. W. R., Iowa.

Answers—1. The bees do very well close together, if you think you can work at them as well. One trouble is that if the hives are crowded together as close as they can be, sometimes bees will get to crawling from one hive to another. But that seldom makes trouble, and the other danger is that when a young queen flies out on her wedding flight she may return to the wrong hive. So if the hives are all packt close together, it's a good plan to have the front of every alternate one painted a different color, or arranged in some way so they don't look all alike. If you want room between them for your own convenience, put them in pairs, two as close as they can be together, then a space of perhaps two feet, then another pair of hives, and so on.

2. It's hardly worth while for you to try seven frames in an eight-frame hive. You're pretty sure not to like it. You seem to think that seven frames would let you have more honey in the sections, and are probably figuring that the seven frames would have less honey than eight. They might if there was just as much brood in one case as the other. But if each frame is entirely filled with honey, or if each frame in both cases is filled just half way down, you'll find more in the seven frames than in the eight. If you study over it a little while you'll find it so.

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

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Editorial Comments.

New Union Ready for Business.—Over a month ago—as soon as convenient after amalgamation was defeated—the Executive Committee of the United States Bee-Keepers' Union decided to carry out the provisions of the New Constitution, and, as it authorized them so to do, appoint a Board of Directors, so that the New Union might be ready to take up the work intended to be accomplisht by it. But thinking it would be more satisfactory to the members if they were consulted as to their preferences for General Manager and those composing the Board of Directors, a circular and voting card were mailed to each present member, the latter to be used in indicating those whom each member would prefer that the Executive Committee should appoint, in order that the official part of the organization should be complete.

After allowing sufficient time for the ballots to be returned to Mr. M. Best, of Toledo, Ohio (the member selected to receive and count the ballots, assisted by Secretary Mason), the Executive Committee can now issue the following notice, based upon the result as indicated by the returned ballots, there being 61 returned out of a total of 81:

To the Members of the United States Bee-Keepers' Union:—

We, the Executive Committee, according to the power vested in us by the New Constitution, hereby appoint the following as General Manager and Board of Directors of the United States Bee-Keepers' Union, to hold their offices during the balance of the year 1897, or until their successors are elected and qualified:

GENERAL MANAGER—Hon. Eugene Secor, Forest City, Iowa.

BOARD OF DIRECTORS—Ernest R. Root, Medina, Ohio; Rev. E. T. Abbott, St. Joseph, Mo.; Dr. C. C. Miller, Marengo, Ill.; W. Z. Hutchinson, Flint, Mich.; E. Whitcomb, Friend, Nebr.; and C. P. Dadant, Hamilton, Ill.

GEORGE W. YORK, Pres.,
E. WHITCOMB, Vice-Pres.,
A. B. MASON, Sec.,
Chicago, Ill., April 1, 1897. *Executive Committee.*

Now, as the United States Bee-Keepers' Union is fully equipt as to its officers, we trust that bee-keepers everywhere will at once send in their dollar membership fees to the General Manager, Hon. Eugene Secor, Forest City, Iowa, or to the Secretary, Dr. A. B. Mason, Sta. B, Toledo, Ohio, so that there may be ample funds to begin to carry out the objects of the Union, which are exprest in the following paragraph taken from the New Constitution:

ARTICLE II.—OBJECTS.

Its objects shall be to promote and protect the interests of its members; to defend them in their lawful rights; to enforce laws against the adulteration of honey; to prosecute dishonest honey-commission men; and to advance the pursuit of bee-culture in general.

What more do you want? Where is the bee-keeper that doesn't want to help carry out every one of those splendid "objects?" Surely, every bee-keeper in the land will be glad to have his name enrolled as a member of the New Union.

As to the newly selected and appointed officers, we need only say that all of them are too well known, and stand so high in the estimation of bee-keepers, that it would seem that the greatest success of the United States Bee-Keepers' Union is now already assured.

* * *

Spraying Fruit-Trees.—On another page of this number of the Bee Journal, Mr. E. S. Lovesy has an article on the subject of spraying for the destruction of the coddling moth that is such a destroyer of fruit—such a pest to the fruit-growers. It has been clearly demonstrated, by repeated experiments, that it is worse than useless to spray fruit-trees during their bloom, for it has been found that it is immediately *after* the fragrant blossoms have fallen that the coddling moth comes, and lays its eggs upon the rapidly forming fruit itself. *Then* is the time to spray with the death-to-coddling-moth mixtures.

We hope that bee-keepers will see that it is to their interest, as well as that of the fruit-grower, to delay spraying until after the blossoms have disappeared. And this for two reasons—one that it prevents needless destruction of bees by poisoning, and it gives the bees an opportunity to show their great value to the fruit-growers themselves, by aiding in a more perfect pollenization of the blossoms, thus insuring a more abundant harvest.

To spray during the blossoming period, resulting in the death of the bees, and hence much loss in the fruit crop, is quite like "killing the goose that lays the golden egg."

If all could be led to see the truth in this matter of the proper time of spraying, there would no longer be any disagreements among the fruit-growers and their little friends—the blessed bees.

* * *

Another Honey-Commission Fraud.—This time it is New York City that again furnishes the same old story of deception, dishonesty and finally decamping.

Mr. J. W. Parker, a bee-keeper of Onondaga Co., N. Y., has kindly furnisht us the information against the now extinct "firm" of Sanford & Co., formerly of 289 Washington St., New York City. Here is his letter, with which came the usual samples of printed letters and circulars that all snide commission firms send out:

ONONDAGA CO., N. Y., March 22, 1897.

MESSRS. GEORGE W. YORK & CO.:—You will remember I askt you a few weeks ago if you had heard anything about Sanford & Co., commission merchants of New York. I received a card stating you had not, and asking about them, so I will try to give you some facts.

Mr. A., of this place, received several letters from said firm, asking him to send his honey to them. He decided to send a portion of it, so consigned about 400 pounds of fancy basswood honey to them, and did not get one cent from the shipment.

I have a sister living in New York, and I told Mr. A. that I thought my brother-in-law would, if he could, get his money for him. I wrote him, and will send you his letter. Also, will send you one or two letters from the said company that were sent to Mr. A. Should you like anything more, and I can give it, I would be pleased to do so.

Yours respectfully, J. W. PARKER.

The following letter is the one written by Mr. Parker's brother-in-law, after investigating Sanford & Co.:

BROOKLYN, N. Y., March 12, 1897.

BRO. PARKER:—After looking over the letter to Mr. A., that you enclosed, I made up my mind that it was a case of fraud, but to make sure that I was right, I went to the place of business that Sanford & Co. claimed to have, and found that my suspicions were correct—they had cleaued out the place and *skipt* for parts unknown; and if it is any satisfaction to Mr. A. to know it, he is not the only one who was caught in the same trap.

This is only one of the numerous schemes that are being workt every day in this city. This firm run the place for about three months, until it got too hot for them. They had a great many goods consigned to them from different parts of the country, and sold them as fast as they could, and at any price that they could get for them.

These people have probably gone into business again in a different part of the city, and under another name, so it will be well for your neighbors to keep their eyes open, and not get into the trap again.

I feel very sorry for Mr. A., and that I am unable to get any part of his money for him.

Yours fraternally, R. R.

In order that our readers may see the similarity between the consignment-soliciting letter sent out by Sanford & Co., and those of Horrie, Wheadon, etc., we reproduce the one mailed to Mr. A., mentioned by Mr. Parker:

INTERESTING TO SHIPPERS.

NEW YORK, Nov. 10, 1896.

Any produce shipper, who has never sent a consignment of goods to us, when he receives one of our price-currents will naturally ask himself: "Is this firm a RELIABLE commission house?" A shipper always wants to consign his goods to prompt, reliable commission merchants, who are financially responsible and trustworthy, and in whom he can have implicit confidence.

We desire you to assure yourself that when you ship your goods to us they will be sold quickly, at the highest obtainable market prices, according to quality, and that you will receive your account of sales with check to balance promptly, and to thoroughly satisfy yourself on these points, we respectfully request you to write to any one or all of the following parties, whose names we have taken at random from our list of shippers of butter, eggs, poultry, veal, pork, game and furs, apples, chestnuts, honey, etc. [Here followed 20 names and addresses, most of whom were no doubt swindled, sooner or later, by Sanford & Co.—EDITOR.]

We believe that if we sell goods promptly, and get good prices for them, and send the shippers their money without any unnecssary delay, that we will get more shipments from them. They will have confidence in us, and will increase the quantity and number of their shipments to us. This always has been and is our policy, and we find our trade growing steadily more extensive. We are one of the largest receivers of poultry, calves, game and general produce on this market, and the volume of business enables us to work on a very close margin of profit on each shipment, our commission being 5 per cent. on poultry, game, calves, furs, etc., and 10 per cent. on apples.

If you believe in supporting a commission firm that is willing to work on a small margin of profit, giving the shipper honest returns; a firm financially responsible, reliable and prompt in every way—in mailing remittances—in answering all correspondence—in keeping you closely posted with the latest market reports and price currents, and in looking out for your interests in every way, *then ship your consignments to us.*

Give us a trial shipment in order to see what we can do for you, and assure yourself that we can do all we claim, and if you do this, we *know* that you will not divide up your shipments, but will ship *all* your goods to us in the future.

We therefore respectfully solicit your next consignment to this market, and will guarantee you quick returns at full market prices, according to the quality of goods.

Respectfully yours, SANFORD & CO.

You see, it's the same old story—downright lying from beginning to end.

Along the latter part of January, 1897, Mr. A. (who had shipt his 400 pounds of honey to Sanford & Co.) received this "encouraging" announcement:

NEW YORK, Jan. 19, 1897.

Dear Sir:—Owing to the present general depression in business and the extremely poor season we have experienced this year, and also on account of uncollectable outstanding accounts, we find ourselves considerably embarrast and short of funds, and would ask your indulgence for a short time in order to enable us to meet our obligations, and not force us to make an assignment. If you will extend us your leniency in this regard, we may be able to settle up your account in full, or nearly so.

Kindly let us hear from you at once, and oblige,

Yours truly, SANFORD & CO.

And that was the last Mr. A. heard from the prompt, honest, and reliable firm of Sanford & Co.! Now we do hope that no bee-keeper who reads any of the bee-papers will hereafter get caught by such blood-sucking thieves. Better a thousand times *give* your honey to your friends and neighbors, than to help along such conscienceless frauds as we have been holding up to the light in the Bee Journal the past few months.

What a grand work there is to be done by the United States Bee-Keepers' Union along this line. Let it furnish freely to its members private information concerning all commission firms who are dealing, or will hereafter attempt to deal, in honey. We hope it will take hold of this work, and follow it up until all the commission frauds will be buried so deep they'll never have a resurrection. Yes, bury them as the good old lady would bury the Devil—face downward—so that if they should awake, and attempt to dig themselves out, they'll only dig themselves the deeper into the earth.

The Weekly Budget.

PROF. J. E. ARMSTRONG, who is a member of the Board of Trustees of the University of Illinois, and also Principal of the Englewood, Ill., High School, delivered an address before the Cook County Farmers' Institute, held in Chicago on March 25, on "Bee-Keeping in Cities." Prof. Armstrong has had experience in this, and understood what he talkt about.

MR. CHARLES S. PIZER, of Franklin, Pa., an old subscriber and ardent admirer of the American Bee Journal, died at his home on March 27, having suffered from a long and lingering illness of about 13 months. His complaint was a complication of liver and other diseases. Mr. Pizer was an expert bee-keeper, and an enthusiastic worker in everything pertaining to the interests of the honey-bee and its keeper.

MR. THOS. G. NEWMAN, General Manager of the National Bee-Keepers' Union, writing from San Francisco, Calif., March 26, says:

"I am quite unwell again with la grippe—which I find is about as bad here as in the East. I am hardly able to sit up—but I *must.*"

We hope Mr. Newman does not suffer as much from la grippe there as he did while in Chicago. He surely has had more than his share of experience with that enemy to good health and comfort.

MR. N. E. FRANCE—Secretary of the Wisconsin State Bee-Keepers' Association—is entitled to the everlasting gratitude of the bee-keepers of that State for his constant efforts in their behalf during the past year or more. In a letter dated March 26, Mr. France says:

"By constant watching and following up our legislative Bills, I got both of them through *to-day,* by a large majority vote—94 to 3. All lacking now is the Governor's signature (which will be next week) and publication."

The two Bills referred to by Mr. France are those dropping sweet clover from the noxious weed list, and the foul brood measure. We expect an article from Mr. France as soon as the Bills are signed, and thus become laws.

Now, we want to advise every Wisconsin bee-keeper to at once send Mr. France (at Platteville, Grant Co., Wis.) their membership fee of 50 cents, and thus become members of the Association. The funds are needed to pay the expense incurred by necessary trips to the capital, in the interest of legislation, and other matters. Mr. France will be greatly pleased to receive membership fees at this time, as it will show that Wisconsin bee-keepers appreciate his work in their behalf.

◆

Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offer on page 218.

General Items.

Late Spring—Fruit-Bloom Honey.

We are having a late spring. My bees are bringing in honey from fruit-bloom.

J. A. SHONE.

Benton Co., Miss., March 26.

Bees Swarming.

My bees are doing fine. They have been swarming in this country for 10 or 12 days. The prospects are good for a good honey-flow.

J. W. JONES.

Maricopa Co., Ariz., March 21.

A Beginner's Report.

I started last year with 3 colonies, took about 450 pounds of honey, and put the colonies with about 30 to 35 pounds honey in the cellar. Up to date they are all right. Last year I got no swarms, but the colonies were strong.

R. SCHLESINGER.

Rock Co., Wis., March 29.

Doing Well—Maple in Bloom.

My bees are doing well, only we are having too much rain. Maple and elm are in full bloom.

I can't do without the American Bee Journal. I wish you much success.

H. M. PHILLIPS.

Dyer Co., Tenn., March 8.

Bees in Fine Condition.

I lookt my 52 colonies of bees over carefully March 18, and found *all* alive, and nearly all in fine condition. I winter them out-doors in large chaff hives, and seldom have a loss of over 3 per cent. The prospect here is excellent for a big honey crop this season.

C. W. McKOWN.

Knox Co., Ill., March 22.

Lots of Snow and Rain.

O for fine weather! A week ago we thought spring had come to stay, but now it is the snow and rain over again. Everything in the mountains is buried out of sight. There is more snow than ever known before. It is said that in some places people have been sleighing over the the tops of the telegraph wires and poles.

E. S. LOVESY.

Salt Lake Co., Utah, March 29.

Wintering—Selling Honey.

Bees in this locality are wintering very well. I put 11 colonies into the cellar and they are all alive; I also have 14 packt in sawdust, and they seem to be all right.

In packing my bees out-doors, I make a house long enough to hold a certain number of hives, leaving a space about 4 inches all around to pack with sawdust. The roof is portable. All my hives have porticos, and that is placed tight against the front, with an entrance about ¼x2 inches. The front with the entrance is hung with hinges just high enough to come to the bottom of the top projection of the portico; it is so arranged as to raise and hook up in case I wish to examine the entrance. I find it very convenient. I set the hives side by side until I get it all full, then put on the supers with chaff cushions, and cover all with burlap, and pack in the sawdust, as much as 4 inches on top. I am careful that the sawdust is dry, and if the bees have a good queen and plenty of supplies they are all right.

The Bee Journal is a welcome visitor; it comes surely and safely every Thursday. There is nothing in it that escapes my eye, and I am in accord with it in exposing dishonest commission men, altho I was fleeced

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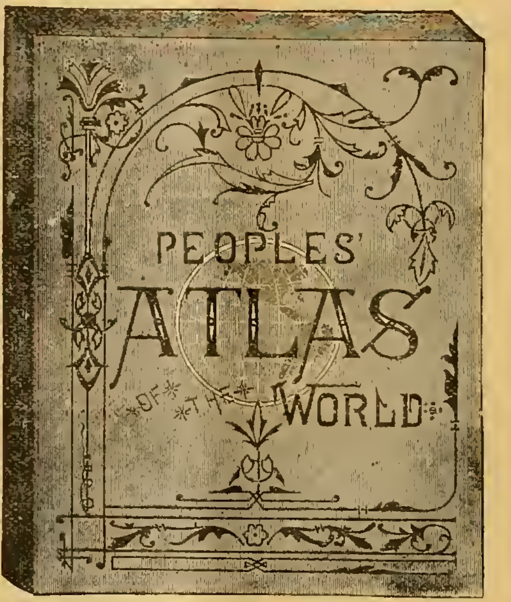

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Our Liberal Offers: We will mail this great Atlas, postpaid, for only 50 cts.; or for $1.40 we will send it with the Bee Journal for one year; or we will mail it free as a premium for sending us **one New Subscriber** ($1.00) to the Bee Journal for a year.

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OUR SHINGLE is now hung out, notifying the public that we are again **ready to ship Queens.** Having greatly enlarged our facilities, can fill orders **by return mail.**

Golden Beauties, 3 Band Italians
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Warranted Queen, 50c.; Tested, 75c. Make Money Orders payable at Caldwell, Tex. Send for Catalog of **Bee-Keepers' Supplies.**

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ONE MAN WITH THE
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Thorough Courses — Normal, Commercial, Ladies Literary, Shorthand and Typewriting. Efficient and experienced instructors. Day and Night sessions. **Send for Catalog.**

Prof. LEWIS EDWIN YORK, Pres.

Mention the American Bee Journal.

to the tune of $47.00 by C. R. Horrie & Co., on account of the confidence I had in the Bee Journal. When their agent came to me he had a bundle of the Bee Journals, and the first thing, by way of introduction, he presented me with a copy, and called my attention to their advertisement, and I bit to the tune of $47. Some time before my experience I saw in the Bee Journal that several parties had been swindled by parties in Chicago, but no names were given, and I believe I was the first to expose Horrie & Co., and I believe it is right, if a commission man deals dishonestly with you, to expose him, give his name to the public, and not say that you have been swindled "by a man in Chicago," as there are honest men, and it is an injustice to them.

I am through with commission men now. The way I sold my honey last fall was simply this: I made a showcase that holds 6 sections of honey, with glass front, and hired a man. He was an insurance agent, and a hustler at that, and in less than one day he sold my crop of honey—sold direct to the consumer. All I had to do was to deliver it, in quantities of from 2 to 56 section orders, at 12½ cents a section, and I find that it is by far the best way to sell direct to consumers. E. B. Huffman.

Winona Co., Minn., March 16.

* * *

Doing Nicely this Spring.

Bees were doing nicely this spring until the last week, which has been cold and rainy. It is fair again, and they are making up for lost time, and are in better condition now than in June last year. We have had two years of almost a total failure. I have 15 colonies, 4 of which are blacks, but I am rearing queens for them now. H. I. McCoy.

Columbia Co., Ark., March 22.

* * *

Wintered in Fine Condition.

We took our bees out of the cellar the middle of the month, and all were alive; we never had them come through in so fine a condition both in cellar and out-of-doors—150 colonies; tho two were so quiet I thought they might be nearly dead, but on the warm days they flew as if all right. Of course, I will examine those I think are weak, later on, and shut them to just what combs they can cover.

Mrs. L. C. Axtell.

Warren Co., Ill., March 24.

* * *

Apparently Wintered Well.

My 25 colonies of bees, wintered on the summer stands, are apparently in good condition. Yesterday was pleasant, and they had a fine flight. To-day it is snowing quite hard.

The "Old Reliable" seems to be improving all the time. Those who have read it carefully during the winter will be better prepared to look after their bees and honey crop the coming season than ever before. It is a welcome visitor every Thursday afternoon at our house.

Mrs. Paul Barrette.

Crawford Co., Wis., March 23.

* * *

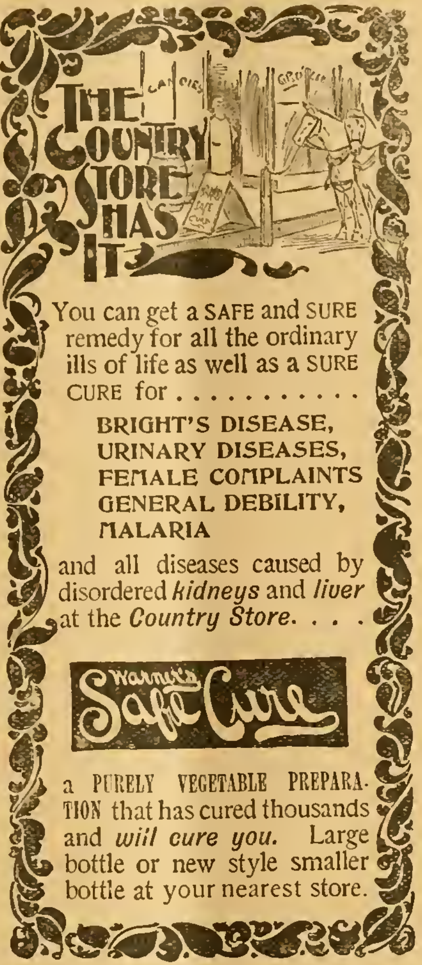
A Visit to the Pacific Coast.

I have returned from my delightful trip to the Pacific Coast. I met a great many bee-keepers, and saw a variety of hives. I saw bee-men who said no man could run fast enough to give them a Hoffman brood-frame. I also saw bee-men who would use no other frame. I find the tendency on the Coast to be for cheap goods regardless of quality. There are noted exceptions to this rule. I find that the California Bee-Keepers' Exchange has reduced the cost of sections to the consumer from $4.00 per 1,000 to $2.50. I am afraid the Exchange will have more trouble to dispose of the honey crop at satisfactory prices.

I found some friction between fruit-men and bee-men. I think the bee-men should advocate more strongly the benefits which fruit-growers derive from pollenization by bees. Hostile legislation on the bee-question can be prevented as demonstrated by the prompt and decisive action of the Colorado bee-keepers. Mr. J. W. Harris (of Colorado) has done good work along these lines, and is deserving of much credit.

I wish to say that my advertisement in the American Bee Journal brings me more inquiries than any other medium now in use for that purpose. W. H. Putnam.

Pierce Co., Wis., March 20.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and all diseases caused by disordered *kidneys* and *liver* at the *Country Store*. . . .

Warner's Safe Cure

a PURELY VEGETABLE PREPARATION that has cured thousands and *will cure you.* Large bottle or new style smaller bottle at your nearest store.

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For presentation upon the death of a dear one, to relatives and friends, have come into vogue quite generally of late years among the American people. We furnish them to order. Send for free illustrated circular and price-list. Prompt and satisfactory work at living prices. Address,

G. S. UTTER & CO.,
Times Building, - CHICAGO, ILLS.

WANTED—ATTENTION!

SEE HERE, Friend Bee-Keeper, the best goods are none too good, and the lowest prices are none too low for the present times, so down go the prices for 1897 on **Full Line of Bee-Keepers' Supplies.**

I defy competition in quality and workmanship. **Working Wax** into Foundation when sent to me, a specialty. Write, without fail, for Catalog. My prices are worth looking at. Wax wanted at 26c cash, or 29c in trade, delivered. August Weiss, Hortonville, Wis.

6A1 *Mention the American Bee Journal.*

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Dovetailed Cedar Hives

Direct from the Factory. Guaranteed equal to the best goods on the market.

Send for **Price-List.**

Rawson & Barner, Centralia, Wash.

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Golden
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Texas Queens!

Dr. Gallup says they are the best he has in his yard.

J. D. GIVENS, Lisbon, Tex.

Mention the Bee Journal. 9A26t.

* * *

Bees are All Right.

To-day is rather cool. My bees are all right so far. They are now gathering pollen, and I like to watch them as they come in.

I would not like to be without the Bee Journal now. I take several papers, but the American Bee Journal is the most interesting to me. I watch for its arrival anxiously every week. I shall not do without it in the future; it is worth its price to those that handle bees, or to beginners.

C. H. Pettingill.

Richardson Co., Nebr., March 22.

* * *

Lost for Want of Attention.

My colonies are wintering outside in 10-frame hives. I lost lately a nice colony of bees (which had wintered successfully) through want of attention. To-day I find 6 or 7 more on the verge of starvation. The The point is this: Since the beginning of September last the bees in our locality have had to depend entirely upon their winter stores for their living. It will be eight months, by May 1, since they will have been drawing on their stores! So, please tell "the brethren" to be on the "look out" to ascertain as soon as possible the amount of their bees' stores, and to feed without delay. H. Dupret.

Prov. of Quebec, Canada, March 29.

* * *

Report from the North.

We are having extremely cold, wintry weather here just now; lots of snow. My bees had the first flight this season on March 21, but since then we have had a great snow-storm, and they are again closed up. Last season was very good with us here, considering we are so far north. I commenced the season with 30 colonies, increast to 70, and got of extracted and comb honey about two tons. I think the bees are going to come out all right this spring, as far as I can see now. I winter all on the summer stands. I never had any success with cellar wintering. Our seasons here for honey-gathering are very short compared with some places I see by reading the Bee Journal. I wish you all the success your valuable Bee Journal deserves.

Wm. Aiken.

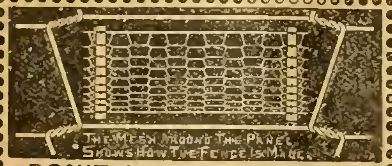
Ontario, Canada, March 26.

* * *

Wintering Under a Kitchen, Etc.

We are on our second year's subscription to the American Bee Journal, and like it, of course.

I often see questions and subjects in the American Bee Journal upon which I feel that I have some knowledge, that I might give light to others, if given expression. On page 134 is something about wintering bees in a cellar under a kitchen. I can give my experience on that. Our house is 32x40 feet, one-half the length and width is walled up for a cellar. The ground slopes very much to the west, so there is a terrace, and the cellar occupies the west half. The east part next to the wall is quite deep, so that one can stand up in places, while farther under it is shallow. It is perfectly dark, the opening being from the woodshed on the north, and a small hole on the opposite side, in the wall, which is covered by a porch for ventilation. This place we use for a bee-cellar, and for no other purpose. It is perfectly dry, and when we wish to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DON'T HAVE A LAWSUIT with your neighbor because his stock breaks in and destroys your crops. It is better and cheaper to fence with the KEYSTONE WOVEN WIRE FENCE. Where it is used there can be no such trouble. Why? Because it keeps stock in or out. 25 to 58 in. high. Strong, durable, perfect. Can't hurt stock—it's smooth. Send for free book on fence building.

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Is one that definitely promises to keep an accurate account with you; credit your premiums and interest, charge the actual expense and mortuary cost, and hold the remaining funds subject to your order.

Agents Wanted.

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Pet Stock and Incubators if conducted according to "The Chautauqua Guide to Big Profits" just out and sent postpaid with our 1897 Catalogue for 4c to help pay postage, etc. Best eggs and stock cost no more if purchased of us, you can then sell your product to us and thousands others for high fancy prices. We own 300 acres most elegantly adapted to poultry. **CHAUTAUQUA POULTRY & PET STOCK FARM, Box 17 KENNEDY, N.Y**

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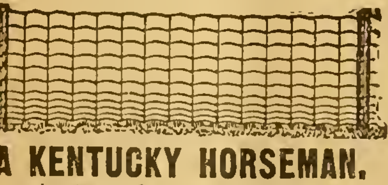

A KENTUCKY HORSEMAN.

A good customer of ours offered an unbelieving farmer $100 to bring him a bull that could go through the Page. Says he is not "talking for money," but simply good will toward the manufacturers of such a perfect fence. Says he "would rather pay our price than have a common wire fence given him"

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

ventilate it, we open an east and west door, and north window in the woodhouse, and there is a good circulation. We did not prepare this place, but simply utilize it for that purpose. In regard to noise, our kitchen, dining-room, and post-office are directly over the bees, and if noise would affect them they certainly would be affected. My experience is that noise does not affect them, but jarring does, so we are careful on that score. We removed the bottom and set the hive about 4 inches from the ground. Up to date we have only lost one colony out of 37 placed under there, and that was short of stores, and we could not get to it very well to supply it. We have 47 colonies packt out-of-doors with 4 inches of packing of straw and chaff all around. Only one colony is missing so far. Last year our weakest colonies were placed in the bee-cellar, and came through fine.

My oldest son and I are partners in the bee-business. We are both quite enthusiastic over it, tho perhaps not quite so public spirited as we should be in giving our knowledge for the good of others. We hope to be able to attend the convention at Buffalo next fall. We run for comb honey mostly.

MRS. D. W. BROWN.
RAYMOND K. BROWN.

Erie Co., Pa., March 26.

Bountiful Crop Expected.

Old Winter is at last relinquishing his hold upon things terrestrial, and ever-welcome spring is shimmering on the threshhold. The 9th of this month the mercury rose to 68 deg., Fahr., and my bees brought in a little pollen—the first of the season. The 15th the mercury rose to 70 deg., and bees carried considerable pollen from the maples. The 19th was another fine day, tho windy. This has been a rather mild winter, tho very changeable; and I believe bees have generally wintered well, where well supplied with stores. I have heard of no losses except from starvation. We have had frequent rains of late, and the ground is thoroughly saturated with moisture. There is an abundance of white clover, and if the Good Father favors us with suitable weather, I look for a bountiful honey crop

W. J. CULLINAN.

Adams Co., Ill., March 23.

Wild Parsnip—Yellow Locust.

I see so much said about wild parsnip in the Bee Journal that I thought I would give a description of the true wild parsnip. It grows along river branches and in swamps. The tops look like the cultivated variety; the roots are quite different, having quite a number of small roots like a dog's foot, and is as poisonous to man and beast as arsenic. The bloom secretes nectar, and is not poisonous to the bees nor man.

I can say the yellow locust yields nectar in abundance some years, and in others none at all. Its bloom is of short duration, only lasting a few days.

My bees have wintered fairly well this winter. I lost one colony out of 50, the one becoming queenless. They are all working finely to-day—March 22—it being as warm as summer. I hope we will have a good honey-year. Success to the Bee Journal.

A. J. MCBRIDE.

Watauga Co., N. C.

A Colorado Report.

We began bee-keeping in the spring of 1894 with 10 colonies of bees and the "A B C of Bee-Culture." We increast to 23, and produced 600 pounds of honey. We wintered the bees on the summer stands without loss. In the spring of 1895, with 35 colonies (having purchast 12) and the Bee Journal for an assistant, we increast to 45, and produced 1,500 pounds of honey. In 1896 we had, spring count, 53 colonies, after purchasing 8. We increast to 78, and produced 3,000 pounds of honey. At this writing I think the 78 colonies are all alive, and apparently strong in bees.

As we are in an alfalfa and sweet clover

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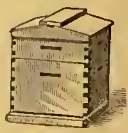

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district, we are sure of a honey crop every year, but sometimes it is better than others, but there has never been a total failure of honey since the country has been settled.

FRANK WING.
MRS. FLORA WING.
Montrose Co., Colo., March 26.

A Beginner's Report.

I have only one colony of black bees in a Langstroth hive, which I purchast last summer. I got 50 pounds of comb honey, but no swarms. I thought of dividing this spring, but all bee-keepers here advise me not to do it, but to let them swarm. It seems they did not have much success with dividing. I wintered my colony on the summer stand, packt in sawdust. I listened to-day and could hear them humming merrily, but the weather has been bad for them. They have had only one flight since I packt them, and on looking around I see a large quantity of dead bees lying in front of the hive; before they had the flight there were hardly any dead ones.

W. NORMAN.
Shawano Co., Wis., March 22.

Bees Did Fairly Well in 1896.

My bees did fairly well in 1896, and have come through the winter in good condition on the summer stands. I had about 400 pounds of comb honey from 9 colonies, and increast to 21, in 1896.

A. R. TOMLINSON.
Bureau Co., Ill., March 29.

Catalogs for 1897.—We have received the following Catalogs, Price-Lists, etc., a copy of which may be obtained upon application, always being careful to say you saw their advertisement in the American Bee Journal:

J. F. Michael, Greenville, Ohio—Queens, Supplies, Potatoes, Seeds and Plants.

The Deming Co., Salem, Ohio—Spray Pumps and Nozzles.

M. H. Hunt, Bell Branch, Mich.—Comb Foundation and Bee-Keepers' Supplies.

D. Hill, Dundee, Ill.—Evergreen Specialist, Fruit Trees, etc.

F. Danzenbaker, Washington, D. C.—Facts About Bees, and Danzenbaker Hive.

E. T. Flanagan, Belleville, Ill.—Bee-Keepers' Supplies, Bees and Queens.

The Minnesota Bee-Keepers' Supply Manufacturing Company, Minneapolis, Minn.—Bee-Keepers' Supplies.

C. & A. Hodgkins Co., Marlboro, N. H.—Water Rams and Wood-Work Machinery.

Queens and Queen-Rearing.—If you want to know how to have queens fertilized in upper stories while the old queen is still laying below; how you may *safely introduce* any queen, at any time of the year when bees can fly; all about the different races of bees; all about shipping queens, queen-cages, candy for queen-cages, etc.; all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know—send for Doolittle's "Scientific Queen-Rearing"—a book of over 170 pages, which is as interesting as a story. Here are some good offers of this book:

Bound in cloth, postpaid, $1.00; or clubbed with the BEE JOURNAL for one year—both for only $1.75; or given free as a premium for sending us *two* new subscribers to the BEE JOURNAL for a year at $1.00 each.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

Page & Lyon Mfg. Co. New London, Wisconsin,

Operates two sawmills that cut, annually, eight million feet of lumber, thus securing the best lumber at the lowest price for the manufacture of

Bee-Keepers' Supplies.

They have also one **One of the Largest Factories** and the latest and most-improved machinery for the manufacture of

Bee-Hives, Sections, Etc.,

that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polisht on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equipt with best machinery, all combine to enable this firm to furnish the

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Send for Circular and see the Prices on a Full Line of Supplies.

Please mention the American Bee Journal. 7Atf

That Queen-Clipping Device Free!

Works Like a Charm.

The Monette Queen-Clipping Device WORKS LIKE A CHARM. With it I have clipped 30 queens, all in one day, when examining my bees. WM. STOLLEY, Grand Island, Nebr.

Couldn't Do Without It.

I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now. DR. GEO. LACKE, Newburgh, Ind.

PLEASE READ THIS OFFER TO PRESENT SUBSCRIBERS:

Send us *just one new name* for the American Bee Journal a year (with $1.00), and we will mail you the Queen-Clipping Device FREE of charge. Or, the Queen-Clipping Device will be sent postpaid for 30 cts. But why not get it as a Premium by the above offer? You can't earn 30 cts. any easier. Almost every bee-keeper will want this Device.

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Mr. Abbott sells our Hives and Sections at Factory Prices.

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The Honey that Suits All Who Buy It.

Low Prices Now!

We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 7½ cents per pound; 2 cans in one case, 7 cents; 4 cans (2 cases) or more, 6½ cents. The Cash MUST accompany each order. **Fine Basswood** Flavor Honey at same price; also in 270-lb. barrels.

☞ A sample of either honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

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FEED YOUR BEES

WITH BASWOOD. PROTECT THEM WITH EVERGRENS.

100, 2 to 5 feet, $10. 100 Baswood Seedlings, $1. Delivered free. Other sizes just as cheap. **50 $1.00 Bargains** by mail. Millions to select from. Also **Fruit Trees, Small Fruits, Vines, etc. Liberal cash** commissions for clubs. **Illustrated catalogue free.** Good local Salesmen wanted. Address

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4E6t *Mention the American Bee Journal.*

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For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 24 cents per pound, CASH; or 28 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly,** for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,

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THE HYDRAULIC RAM

Where the conditions are just right, there is certainly no other way to raise water so nicely as with the Hydraulic Ram. All that is required is a little fall of water from the spring or brook. If you write **C. HODGKINS & SONS, Marlboro, N. H.,** they will tell you all about them.

Mention the Amerlean Bee Journal.

Early Italian Queens

Up till the middle of April at these prices: Untested, 75c.; Tested, $1.25.

E. L. CARRINGTON,
5A17t **De Funiak Springs, Fla.**

Mention the American Bee Journal.

FREE

A booklet, handsomely illustrated, describing **Nebraska,** her farms and the opportunities there for young men and farm renters to become farm owners Mailed without charge on application to P. S. Eustis, General Passenger Agent, C., B. & Q. R. R., Chicago, Ill. 14A8t

Mention the American Bee Journal.

QUEENS!

Golden Italian. 3-Banded, Carniolan—Queens by return mail.

Potatoes at low prices. Catalog tells all. Send for it. J. F. Michael, Greenville, Ohio.

14Etf Please mention the Bee Journal.

A FEW Black and Hybrid Queens to sell. or kill. Blacks, 15c., or 8 for $1. Hybrids, 20c, or 6 for $1. Choice Italian Queens ready May 1st. Tested, 90c.; Untested, 65c. Nuclei way down. Circular free. M. O. office Sparta, Tenn. COOPER & GILLETT, Quebeck, Tenn.

Mention the American Bee Journal.

BEE-KEEPERS! Let me send you my 64-page Catalog for 1897.

J. M. Jenkins, Wetumpka, Ala.

Mention the American Bee Journal.

For Sale, Choice Italian Bees.

Full Colonies at $5.00; Nuclei, $1 per Frame.

—Queens in Their Season.—

Also a Full Stock of the

B. Taylor Handy BEE-KEEPERS' SUPPLIES.

Send for Catalog, to—

F. A. CROWELL, Granger, Minn.

10E4t Please mention the Bee Journal.

Rather Amusing.—That is, the replies to our query, "What ails the A. B. J.?" p. 159, Mar. 11th. Evidently its readers are its staunch friends, and ready to stand by the paper, its editor, and its advertisers as well. Still, I'm not satisfied. I want to become acquainted with more of you, and want you to know me. We can help each other.

I make and sell YELLOWZONES. They are tablets used for the cure of pain and fever under almost all circumstances. I do not know of a better household remedy, nor their equal in curing Grip. You have seen the testimonies in these columns of Editor York, Dr. Mason, and others. They all like them—and so will you!

Here they are. *I'll give them away!* Just ask for it, and I'll send you a 10-cent sample Scott free, with circulars and testimonials: or, better yet, will send you *two* 25-cent boxes *for a quarter.* These offers only for immediate replies, that you may test them. Now let's have an avalanche.—W. B. HOUSE, M. D., Drawer 1, Detour, Mich.

Mention the American Bee Journal.

BEST ON EARTH!!

18 years the Standard. The 4-inch "Smoke Engine." Is it too large? Will it last too long? Will save you lots of money and bad words. Send for Circular. 6 sizes and prices of Bingham Smokers and Knives.

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JOHN NEBEL & SON, High Hill, Mo.

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Plants for sale cheap—Red and Black Raspberry, and Strawberry.

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Our Sections are the finest, and our Perforated Zinc is the only perfect and fully reliable now made. It costs more, but is worth more, and does not obstruct the passage of worker-bees.

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lying along and owned by the Yazoo & Mississippi Valley Railroad Company, and which that company offers at low prices and on long terms Special Inducements and facilities offered to go and examine these lands, both in Southern Illinois and in the "Yazoo Valley," Miss. For further description, map, and any information, address or call upon E. P. SKENE, Land Commissioner, No. 1 Park Row. Chicago, Ill. 8E6t

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in all the many shows in which it has participated, there must be something in the superiority claims of the **RELIABLE INCUBATOR** Self regulating, entirely automatic, you put in the eggs, the Reliable does the rest. All about this and many things of value to the poultry man in our new book. Send 10 cts. for it.

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Call and see me when in BOSTON.

13A2t **S. A. FISHER, 82 Water St.**

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HONEY and BEESWAX

MARKET QUOTATIONS.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

Chicago, Ill., Mar. 19.—Fancy white, 11@12c.; No. 1, 10@11c.; fancy amber, 9c.; No. 1, 7c.; fancy dark, 8c.; No. 1, 7c. Extracted, white, 5@7c.; amber, 5@6c.; dark, 4½c. Beeswax, 25@27c.

Stocks are working down, but there is no improvement in price. The season for comb honey is drawing to a close. Any one intending to market in the cities should do so now.

Albany, N. Y., Mar. 20.—Fancy white, 12-13c.; No. 1, 11-12c.; fancy amber, 9-10c.; No. 1, 8-9c.; fancy dark, 7-8c; No. 1, 6-7c. Extracted, white, 5-6c.; dark, 3½-4c.

Demand is all that could be expected at this season. Stock on hand small.

Indianapolis, Ind., Feb. 20.—Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Boston, Mass., Feb. 20.—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Cleveland, Ohio, Feb. 20.—Fancy white, 14½@15c.; No. 1 white, 12½@13c. Extracted, white, 6@7c.; amber, 4½@5½c. Beeswax, 22@25c.

There is not very much honey in our market Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

St. Louis, Mo., Feb. 19.—Fancy comb, 12@@13c.; No. 1 white, 11@11½c.; amber, 9@10½c.; dark, 7@8½c. Extracted, white, in cans, 6@7c.; amber, in barrels, 4@4½c; extra, 5c.; dark, 3@4c. Good demand for barrel stock—comb slow sale. Beeswax, 23@23½c.—prime finds ready sale at 23½c.

San Francisco, Calif., Mar. 17.—White comb, 9-10c.; amber, 5-7c. Extracted, white, 5-5½c.; light amber, 3½-4c.; dark tule, 2¾c. Beeswax, fair to choice, 24-26c.

Philadelphia, Pa., Feb. 2.—Fancy white comb, 12-13c; fancy amber, 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3½-4c. Beeswax, 25c.

Season is getting over for comb honey—very little demand. Extracted in good demand.

New York, N. Y, Feb. 20.—There has been a little better demand for comb honey during the last two weeks Prices, however, will not improve, as the season is too far advanced and plenty of stock laying on the market. We have a good demand for extracted buckwheat, candied, and bee-keepers having their crop on hand yet, should now market it.

Beeswax is quiet at 26 28c., according to quality.

Cincinnati, Ohio, Mar. 22. — Demand is slow for all kinds of honey, with a fair supply. Comb honey, 10@13c. for best grades; extracted, 3½@6c. There is a fair home demand for beeswax, with a fair supply, at 22@25c. for good to choice yellow.

Kansas City, Mo., Mar. 22.—No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 9@10c.; No. 1 dark, 8@9c.; Extracted, white, 5@5½c.; amber, 4½@5c.; dark, 4c. Beeswax, 22@25c.

Detroit, Mich., Mar. 12.—No. 1 and fancy white comb, 11-12c.; other brands, 7-10c. Extracted, white, 5-6c.; amber and dark, 4-5c. Beeswax, 24-25c.

Minneapolis, Minn., Feb. 20. — Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Buffalo, N. Y., Apr. 2.—Our market continues about 10-11c. for fancy honey, occasional sales at 12c. Some lots hang fire, but anything that is beyond criticism sells very well. Com on ranges from 8-5c. Extracted, 4½-5½c., as to quality, etc.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN,

Kansas City, Mo.
C. C. CLEMOMS & Co., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
WILLIAMS BROS., 80 & 82 Broadway.

St. Louis, Mo.
WESTCOTT COM. Co., 213 Market St

Minneapolis, Minn.
S. H. HALL & Co.

Milwaukee, Wis.
A. V. BISHOP & Co.

Boston, Mass.
E. E. BLAKE & Co., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. McCULLOCH & Co., 380 Broadway.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central avs.

Honey - Clovers !

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
Alsike Clover	$ .70	$1.25	$3.00	$ 5.75
Sweet Clover (white)	.60	1.00	2.25	4.00
White Clover.......	.90	1.60	3.75	7.00
Alfalfa Clover.....	.60	1.00	2.25	4.00
Crimson Clover....	.55	.90	2.00	3.50

Prices subject to market changes.

Add 25 cents to your order, for cartage, if wanted by freight.

Your orders are solicited.

GEORGE W. YORK & CO.,
CHICAGO, ILLS.

One Cent invested in a postal card will get my large Catalog of All Root's Goods. Send list of what you want, and get price.
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Doctor's Hints

By Dr. PEIRO,
100 State Street, *** CHICAGO, ILL.

That Toothache. — Good! Now every boy who has an aching tooth can, with a little trouble, be his own dentist, and fill his own teeth. A good preparation is now sold for 25 cents in the drug stores, with full directions how to use it.

Sore Eyes may be due to a catarrhal cold, or may be the result of infection from a sufferer from that disease. The lids are covered with matter, by which they are generally stuck together over night, parting with difficulty and perhaps pain on waking in the morning; the light—either sun or lamp light—being often unbearable. As much pulverized borax as will cover a dime, put into a pint of water, and frequently applied in and over the lids, will do great good. A little camphorated ointment applied to the edges of the lids on going to bed will prevent their sticking together. A teaspoonful of Epsom salts, morning and night, taken in hot water is excellent. The diet should be light. If these directions are followed a cure is pretty certain to ensue.

Shingles are itching "welts"—raised places on the body, particularly the arms, legs, and stomach that look much like big musquito bites. They itch intensely, and scratching does no good. It is the result of a disordered digestion, eating substances that are either too much in quantity or indigestible. In any case, the stomach needs a rest, and a pinch of cooking soda every hour or two—with an occasional dose of salts at bed time. There is no danger to be apprehended from this condition, tho it is greatly feared by some. A few days' treatment as above will fully cure.

Destroyed Drumheads of the ear are not usually healed, and partial or complete deafness sooner or later is certain to follow. Most of these cases occur during childhood, from severe "colds" or diseases like scarlet-fever, whooping cough, measles, etc. It is far easier to prevent it at such times than to cure when the perforation has actually occurred. Look out for this accident when your child begins to have a "running ear"—that is when the mischief is being done. Keep the ears well syringed with warm water, and under no condition fill the ear with cotton. This keeps the matter inside—the very thing that does the greatest harm. Give it every chance to come out, hence syringing is the best way to cleanse it. Pulsatilla—a drop every hour—is very good. But if the trouble continues for more than a few days, a skillful doctor ought to see it. But cleanliness is of great importance.

Ladies had best write me regarding their troubles personally, enclosing stamp for reply. It is not best to explain some facts in public print.

Cross-Eyes can be straightened without difficulty or much pain by a skillful surgeon, and it ought to be, for none of us wish to appear needlessly deformed. We owe it to everybody to look as well as we can.

Nervousness may be due to many causes, too numerous to mention here, but I will be glad to help any young people with such friendly suggestions as may be necessary. DR. PEIRO.

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Desiring to make room for new goods, we offer from stock at this branch, No. 1 Dovetailed hives, 8-frame complete, with sections, foundation-starters, and nails, at $5.75 for 5; $10.50 for 10; $20.00 for 20; No. 1E, same without sections and starters, $4.75 for 5; $8.50 for 10; $16.00 for 20; 10-frame complete, 20 cts. each extra; 10-frame E, 15 cts. each extra. Other Hives in stock at a similar reduction.

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AMERICAN
BEE JOURNAL
DEVOTED EXCLUSIVELY TO THE INTERESTS OF HONEY PRODUCERS

37th Year. CHICAGO, ILL., APRIL 15, 1897. No. 15.

View of Mr. C. W. McKown's Apiary.

Mr. McKown began the bee-business in 1878, in a small way, by buying a few colonies in box-hives, and past through about the usual experience of others in getting them home and transferring them to movable-frame hives. In moving them home the combs broke down in two of the hives, and daubed and drowned the bees. Then in transferring there were more failures, as a natural consequence with a beginner. His only help was Prof. Cook's "Manual of the Apiary," and the American Bee Journal. After transferring, he secured some Italian queens, and had the first and only yellow bees in his vicinity at that time.

Winter losses were heavy, and as he had to winter them on the summer stands, he changed all into double-walled hives. Since then (for 12 years) winter losses have been very light. For four years profit and loss were about equally divided, but in the spring of 1882 he had 60 colonies, and that summer secured 10,175 pounds of honey, and sold it for an average of 13 cents, having hired only $18 worth of help. Since then it has been smooth sailing with him and the bees. He has had as many as 240 colonies at a time, but aims to winter but 100.

Apiary of Mr. C. W. McKown, of Knox Co., Ills.

The apiary is in the center of the village, with a street on two sides within a few feet of the outside hives, yet he has never had any trouble with travelers, thieves or neighbors. His production is about one-third comb and two-thirds extracted, and he depends upon the home market, just like every wise bee-keeper does, when he possibly can do so.

Contributed Articles

Wax Moth and Worms in Comb Honey.

BY G. M. DOOLITTLE.

One of our oldest and largest comb honey producers writes me thus:

Please give us through the columns of the American Bee Journal the best method of keeping comb honey from worms, or the larvæ of the wax-moth; how to destroy such as may be in it when taken from the hive, etc. By doing this you will give us something which will be appreciated by the largest number of bee-keepers. I know you have before given your method of keeping moth-worms out of comb honey, but that was for comparatively small lots; and, besides, the methods which have proven efficient should be given again and again, so as to keep them before the people, and especially that those new in the business may find what they want."

I had not thought it necessary to write further on the subject of "worms in comb honey," but from the above, and several letters which have come to me of late, of like import, perhaps it may be well to speak of this matter again, prefacing it a little to show how we were led to the present ways of keeping comb honey.

Years ago, when I first commenced to keep bees, nearly every one who then kept them, stored their honey in the cellar, considering that such was the place that would keep it best, for it was thought that a cool or cold place was what was needed for the preservation of this product; and it is very hard work to get this notion out of the heads of many who buy honey at the present time. However, it was soon found out that if kept for any length of time in a cool, damp place, the honey would commence to sweat or ooze out of the unsealed cells and sour, while if left in such a place for two or three months the cell cappings would assume a watery appearance and finally burst, so that the whole would become a souring, bad-smelling and bad-tasting mass. This led to the discovery that just the reverse of a cool cellar was the proper place to keep honey, if we wisht to have it improving on our hands; and so it has come to pass that every bee-keeper of any experience is to-day recommending a room, whose temperature can be kept at from 80° to 90°, as the only place in which honey should be kept. By thus storing our product, we have the honey growing thicker and of better quality as time advances, and I see no reason why comb honey could not be kept for an indefinite period, if always in such a place.

But in having such a warm place in which comb honey is stored, another difficulty arises, which difficulty comes in the shape of the larvæ of the wax-moth, as our correspondent suggests. Some of our bee-friends tell us that they are never troubled with these pests, but unless comb honey is sorted as it comes from the hive, I have yet to see a ton of comb honey that does not have more or less of these worms on it, at the end of three weeks from the time of taken from the hive, if kept in a warm room. If the honey is sorted, and only those sections which are snow-white put together, such combs will rarely have any worms on them; but all that are discolored at or near the bottom, and those having any pollen in them are almost sure to be damaged by worms, unless some precaution is taken.

After such honey has been away from the bees about ten days, if we inspect the cappings which are discolored, and those about any cells of pollen, we will detect little places of white dust resembling flour upon the surface of the comb, and usually the more abundant near the bottom of the section. Now, altho this place may not be larger than the eye of a fine cambric needle, still it tells us for certain that a tiny worm of the wax-moth is there, and that unless it is destroyed it will destroy more or less of the comb which incases our honey.

If, after several such examinations you fail to find such little, white, flour-like places, you need feel very thankful and consider yourself more fortunate than many are. But, if you should find these, the next thing is to sulphur your honey, as this is the best known remedy at the present time. My way is as follows:

I take an old iron-kettle of suitable size, and put some ashes in the bottom of it, so there will be no danger of fire resulting from the heat from the coals which are to be placed therein. When I have the kettle thus prepared, I take it to the room where the honey is kept, and pour sulphur over the coals (the sulphur having previously been weighed), to the amount of one-fourth of a pound to every 75 cubic feet contained in the room, when the kettle is quickly pusht under the pile of honey (it having been piled a little off from the floor for the purpose), and the room closed. You will have to be spry in doing this or you will get some of the fumes thereof yourself, which is not very pleasant, I assure you, after having a trial or two of the same myself.

I now look at the windows (two of which should be provided for ventilation in any honey-room) to which any bee or fly which may chance to be in the room will come, hoping to escape their doom. As soon as I see that the last of these are lifeless, I take out my watch, and after the lapse of five minutes, I open the windows so as to carry out the fumes as soon as possible, for if allowed to settle on the combs it will give them and the wood of the sections a greenish color, which will damage the sale of the same. This same thing is sometimes liable to occur if a larger quantity of sulphur is burned than given above. It seems to be a very nice point to get the matter right, for if too much is used the combs are sure to be turned green, while if too little is used the worms will not be killed. The above amount has been arrived at after years of trial and experience.

If more honey is brought into the room after the first has been sulphured, this is also watcht, and when the flour-like spots are found, the same operation is repeated, and so on till I am sure the honey leaves my hands without danger of these pests making an appearance after it has been placed upon the market.

While on this subject, it might be well for me to say that I am not troubled nearly as much with these worms at the present time as I formerly was, the reason of which I attribute to my care that no combs are ever left exposed so as to breed these pests. Years of care along this line will certainly largely free any apiary of this moth difficulty, unless we have those keeping bees about us who pay no attention to this matter. Hives of combs left in the yard after the bees have died from them, (as I have seen them in many apiaries, till they were sending out moths by the thousand and million, to be a nuisance for years to come), are often a bane to those who would have things as they should be. A little care on the part of every one would save all this. Onondaga Co., N. Y.

How Far Do Bees Fly for Forage?

BY DR. E. GALLUP.

I am askt how far bees will fly in pursuit of forage, etc. I was the first person to introduce Italian bees into Iowa, in the section where I lived, and I found them working on a patch of buckwheat 5 miles directly north. The second season that I kept them an old bee-hunter traced them 6 miles from my apiary. He was three days tracing them. He found them at work on a field of buckwheat very freely, or, as he exprest it, "slathers of them;" and as he had never heard of the Italians they excited his curiosity, and he was bound to get them. He had to line them 3 miles across the prairie, and 3 miles through heavy timber. I lived just at the east edge of the timber. I saw him as he came into the clearing, and went and met him. He was quite excited, and showed me his new race of bees. He had then got a strong line, and thought he must be very near them. I invited him to leave his box of bait and come with me. We were then within 20 rods of the apiary, and when I showed him the hives and bees he exprest great surprise, and said that he had never heard of Italians, and he would be doggoned if he would have spent so much time hunting the pesky things if he had known about me keeping them. He lost the line several times in the timber.

Italians are strong fliers, and how much farther they will go in pursuit of forage I do not know. They did not seem to be much exhausted on arriving at the hives with their loads, as I watcht them closely at different times. Of course, they flew over instead of through the timber, which was on the river flats, while the prairie was considerably higher.

And now comes another story: It is a fact that there are bees on Catalina Island, and I am informed that they are well-markt hybrids or Italians. So far as known, no one ever took bees there in the first start. The distance from the main land is called 30 miles. In March, when bees swarm here, the wind usually blows from the east towards the Ocean, and sometimes quite strongly. Wild swarms almost invariably, that are passing over, move from east to west. In summer the wind always blows from the west or southwest. A man that kept some 25 colonies on the bluff or mesa, as it is called here, at the edge of the Ocean, informed me that his absconding swarms would rise up in the air, and start over the Ocean west.

Now comes another story: A fisherman catching fish about midway between the Island and the main land, saw a swarm pass over his fishing boat, and they were passing from the Island to the main land. This was at the time when the wind was blowing strongly from the Island to the main land.

Now, you Eastern chaps may think this sounds like a "fish story," but I have no doubt about bees succeeding in passing both ways. Of course, it is circumstantial evidence, but that the bees are on the Island is a positive fact. The question is, *How did they get there?* Orange Co., Calif.

The Reciprocal Influence of the Queen Upon the Spermatozoa, and Vice Versa.

BY ALEX. C. M. SCHRODER.

All breeders of foreign races of bees have often observed that the progeny of yellow queens which had been mated to a black drone, showed this not only in their workers, but also in the drone, which latter, according to the laws of the parthenogenesis, are developt from unimpregnated, say virgin, eggs, and therefore should have no relationship to the drone that mated with their mother!

It often happens that the same queen produces finer-looking workers in her second season, whilst her drones are less fine looking fellows; all the facts have not yet been explained in any satisfactory way, and many a one has been induced to doubt the truth of parthenogenesis, in his own heart, if not openly! Now, I do firmly believe in the virgin's propagation of bees; I am convinced that the drones issue from not fecundated eggs, and represent strictly nothing but their mothers' blood, and explain the above-mentioned facts simply by the influence either of the queen's blood upon the spermatozoa, or of these latter upon the queen's blood.

Many years ago I had a fine Angora cat, grey like a mouse, with long, silky hair. She was mated to a male cat of a common race, and produced half-breed kittens. I was sorry about it, but thought the next time I would do better, and when the time came I lookt my lady puss up, and with her a fine Angora male cat. The result, however, was not what I thought—the kittens were not all Angora cats at all! I was then told that the same thing happened with other animals. For instance, the mare that had been crost with a donkey, and had once produced a mule, was no more to be used for horse-breeding, as the young horses showed some connection with their "stepfather," Mr. Donkey!

It was in the year 1875 or 1876, I made a call upon Count Kolowrat and Mr. Ed Cori, in Bohemia, the first breeders of Cyprian queens in Europe, from whom I had procured the same, and there I found that even the primogenitors (I mean the queens' daughters of original queens)—that all produced only 3-banded workers, with the "half-moon" on the corselet, altho it was pretty certain that they had been mated to black drones; whilst their drones showed signs of hybridization! We could not, at the time, come to a conclusion how this fact could be explained with the laws of parthenogenesis, and only much later I came to the persuasion that it was nothing but the influence of the queens' blood upon the spermatozoa of the male, which live in her spermatheca!

The queen-bee is once mated, and the male sperm is taken up and preserved in a special little bag, called the "spermatheca," and here continues to vegetate and impregnate the eggs from which workers or queens have to issue. Now, would it be possible that these spermatozoa could live in that bag for years, without any nourishment of some kind, without coming in contact with life giving or preserving blood? Could the spermatheca, or any part of the queen-bee, continue to vegetate without the circulation of the blood? No! The circulation of the blood is absolutely necessary to keep alive the queen and all her organs; and last, but not least, the spermatozoa, which in millions in number are of immense importance to the existence of the whole colony.

Now, if we admit the circulation of blood, we must admit also that particles—be it most infinitesimal—of the drone's blood will assimmilate with that of the queen, and *vice versa*, the spermatozoa will also absorb particles of the queen's blood, and, considering that a queen lays her own weight in eggs in a short time, it proves an immense power of reproduction, so that the assimmilation or reciprocal influence will always more and more increase, and still show itself in the progeny the second season.

During the laying season the spermatheca contains a greater quantity of bee-blood than during the winter time; this fact induced, some years ago, a certain Mr. Metzger, in Hungary, to suggest that the drone-eggs were fecundated by this liquid, and that the spermatheca produced (when once fecundated) new spermatozoa in itself! Now I think that my theory, which explains all the peculiar facts that apparently speak against the truth of parthenogenesis, has more right to likelihood than the hypothesis of Metzger, who wanted to make a hermaphrodite of the queen-bee, rather than believe that anything can be born without fecundation.

I would be pleased to hear our American bee-keepers' opinion about my theory, and I will submit to anybody's better explanation of the above-mentioned facts.

Trieste, Austria.

Feeding Bees Grapes and Raisins.

BY SKYLARK.

The editor of the Bee Journal calls on me for something "*real practical.*"

Well, Mr. Editor, I have a box of it—of the real, unadulterated article, hid away *some place*, but I have forgotten where I hid it. But while I am thinking where it is, I will tell you how I fed my bees in 1896.

In that eventful year, there was no honey here, and starvation stared the bees in the face. Three years ago raisins were so low that I fed my crop to hogs. In 1895 I could not sell my crop at all—could not trade them for *anything* but contemptuous laughter. I refused the trade, for I had enough of that on hand. With a crop of raisins on hand, and a crop of grapes ripening that there was no sale for in any shape—with the bees in a condition that they were sure to starve during the fall and winter—what would you have advised? Buy sugar? Not much. No, sir.

The genius of Skylark rose—or fell—to the occasion. I was sitting on a pile of raisin trays in the vineyard figuring up the cost of digging out 10 acres of vines 11 years old. The bees in tens of thousands were around me, sucking the juice from crackt grapes and those punctured by birds. All at once a thought struck me just above the eyes so hard that it knockt me clear off that pile of trays. Eureka! *I will feed the vineyard to the bees!* And as they come a quarter of a mile from home for the juice, why not make the horses carry it to them, or close to them?

I had a home tread-mill and press for making vinegar, and I utilized these for getting out the juice for the bees. I fed in a large solar extractor (out-of-doors under the shade of a tree), and covered the feed with a little hay. This was continued for more than a month—giving them all they would carry away. I found the juice would sour if any were left over more than the second day. So I drew off all that was left each evening, and *boiled* it. The boiled juice will keep in the open air several days; and sealed up tight, indefinitely—say 6,000 years. I finally took to boiling it all for them, and I had no bother watching it. In fact, this is nothing less than unfermented wine. But in boiling, all the alcohol is evaporated, and it makes a splendid cooling drink for a hot summer day. There is not a vestige of *tanglefoot* left in it.

Now I have been doing the same thing with the raisins for spring feeding, only I had to boil *them* and then press out the juice. The bees made no kick against the proceeding, and I didn't. In both cases I made vinegar out of the pulp. Now, I am sorry you fellows East have no Muscat grapes—no I'm not, either; you crow too much anyhow. *Your* grapes would kink a bee up into a double bow-knot in half a minute. Grapes!

THE NEW DEEP CELL FOUNDATION.

I see that Editor Hutchinson, with T. F. Bingham and others, are out against the introduction of the new deep-cell foundation. But there is no use in kicking against the march of improvements. It has gone steadily on for years—here a little and there a little, ever since Langstroth invented the movable-frame hive. The invention of deep-cell foundation is a great leap forward in the right direction. Instead of helping the adulterator it will kill his business dead, for who will produce extracted when he can get just as much comb honey for the same labor? In time there will be no extracted honey in the market?

W. Z. is afraid of leather. Now, leather—in the shape of a good pair of boots—is much more valuable than deep-cell foundation, pound for pound. Editor Root—in fact all the Roots and branches—are far too sharp to put their boots into drawn combs!

In these latter years the improvements in apicultural appliances have been so great, so swift, and so complete a victory all along the line, that our future progenitors will look back upon us with admiration, pride, veneration and love. *I* will, anyhow!

Strawberries and Honey-Bees—Queen Stung.

BY CARSON VAN BLARICUM.

In previous issues of the Bee Journal the subject of strawberries and bees has been carefully examined, and we conclude that bees do, and do not, visit the berry bloom in quest of honey, but all agree that they sometimes do gather pollen, but only on certain occasions, and then only when the atmosphere is in a humid condition.

I have had my colonies situated within six rods of half an acre of strawberries for the last four years, and by actual observation I have always seen a few bees, between the hours of 9 and 11 a.m., flitting from flower to flower, and I have observed, too, by following a particular bee, that eventually it would leave for other pastures without any perceptible reward for its toil.

Dandelions are in blossom in profusion at the same time, when any observer would actually be in error as to the actual facts of the case. I have been carefully endeavoring to ascertain from what source came the pollen, so generally carried by the bee, and traced its origin to the dandelion. So much for personal observation. These are Nature's own identical truths.

To summarize: We must conclude the fact as a probable result, that bees do not glean any perceptible addition to their stores, or gain an advantage by toiling amid strawberry bloom.

A QUEEN-BEE STUNG, AND ITS RECOVERY.

One Sunday in July, a young bee-enthusiast wisht to see a queen-bee. To accommodate him, I opened a hive of Italians, and found her majesty. I deposited her in my hand, while several of us closely examined her actions (timid ones at a respectable distance for safety, so they said—while I laught at their fears). On returning her to the brood-nest, she became frightened and took wing. Then taking several circles around us, she entered a hive of hybrids. She belonged to a spring swarm, and was not clipt as the others. I at once opened the hive, and found her being balled by the bees. Rescuing her, I concluded she was unharmed, but by examining the bunch of bees in hand, I separated her therefrom. I noticed a sting clinging to the under side of the thorax. I extracted it, and supposed she was free from injury, but all at once she was taken with a sudden tremor, and apparently succumbed.

We all exprest our opinion that she was beyond recovery, but I thought to experiment a little. So on the impulse of the moment I carried her to the house and placed her under a large microscope. I soon discovered that she appeared as if under a powerful narcotic. Placing her immediately in a water bath, thickened with saliva, she began to regain activity. When returned to the hive, the bees cleaned her, and now she reigns queen of all she surveys.

A FREAK OF A SWARM OF BEES.

Just after midsummer I discovered a peculiar feature regarding a colony of bees. I had two weeks before removed two full supers of honey and placed an empty one containing drawn-out combs. I was surprised (to put it very mild) later on, to find this super nearly full of brood with a queen. A queen also was quietly at work in the brood-nest below. The queen below was a young one, just nicely depositing eggs; while the one above was the mother, or old queen, as her wings were clipt. There was no honey-board between. To all appearance there were two colonies within one hive.

I removed the super to a new location for several days, as a test, and both workt with a will. Later I united, choosing the best queen, and all progrest as finely as before. The old queen was only one year old, and perfect in every way. Her hive was satisfactorily supplied with brood. Thus you readily perceive that they were not desiring to supersede her.

WHITE OR PICKLED BROOD VS. FOUL BROOD.

Two years ago my bees had, to all appearance, foul brood, and I wrote to Dr. Miller in regard to it. His reply was that under the existing condition mentioned he could not name or discover a remedy, but later developments convinced me that it was not foul brood. Whatever it may have been, it shows itself in July and August, and then usually disappears for the season.

Last year I discovered a remedy, but it requires patience and forbearance to apply it. I have an ear-spoon which I used with success. Take one teaspoonful of honey, dilute with five drops of water, and add three drops of phenol or carbolic acid; moisten the ear-spoon and introduce it into the cell, and extract the dead brood. This is all I found necessary for a complete cure. Taken when first discovered, it can be executed with rapidity.

The contaimination is very slow at first, but later its action is more progressive. Thus matters can be facilitated by applying the remedy on its discovery.

Calhoun Co., Mich.

Various Notes and Comments.

BY J. M. YOUNG.

I keep a note-book, and when an idea comes to my mind that I think would be of any interest I jot it down. In looking over that book now, I find the following, or the text of what I have written since my last:

NEWSPAPERS AROUND HIVES.—Did you know that when riding or driving against a cold, strong wind, if a common newspaper be placed under the vest over the breast, that it will keep the body much warmer than anything else that can be used? Well, the same idea will work if you put that same newspaper or something like it around your bee-hives when packing them for winter. Try it and see if you are not surprised.

BEE-ENTRANCE GUARDS.—It is a good time now to put on bee-entrance guards. They will save many a small swarm from coming out and going into other hives. It is a mystery sometimes why these small swarms come out; all the reason I know is, they are like some people that want to be always moving around.

LEAVES FOR WINTER PACKING.—I use forest leaves for winter packing on top of the brood-frames in the upper story of my hives. I find that it is the cheapest material that can be obtained, and it is easily disposed of in the spring, by spreading it out over the garden or truck-patch.

MAKING EXPERIMENTS.—The editorial advice given on page 168, under the head of "Making Experiments" is well said, and if such advice is heeded it will save the bee-keeper many times the cost of his Bee Journal. This applies to beginners, and, come to think about it, all my notes are directed to this class of individuals. Of course the experienced will pay no attention, anyway.

TALL SECTIONS.—The Colorado Bee-Keepers' Association has put a damper on that changing-to-the-tall-section business. I don't know as I blame them very much. There are many good points of interest put forth in that paper, read by Mr. Tracy before that body, that are well founded; especially that part relating to supply manufacturers and dealers.

An error exists in my notes on page 165, under the head of tall sections, in the 6th line. It reads "12-inch case," which should be 12 *in a case.*

TAKE A BEE-PAPER.—No wide-a-wake bee-keeper should think of keeping bees without subscribing for a good, live, up-to-date bee-paper. Many ideas will be pickt up that will pay many times the cost of the publication.

VISITING.—Why didn't you come down to my place, Mr. Bevins, (see page 161) when you were at Omaha taking in the sights? It was only 22 miles down here—a half hour's ride—and we would have shown you an apiary that wasn't in the weeds, cornstalks or potatoes, but you would have seen them pretty close to the grape-vines, though. I might not have been at home, but the bees were.

SAVING THE BEE-PAPERS.—If you want to save a world of information just file away your bee-papers as fast as you get them read, into a good binder. I have on hand now nearly all the bee-periodicals I have ever received, back for about 20 years. I seldom look over any of them but what I find some good idea entirely forgotten.

VALUE OF THE UNFINISHT SECTIONS.—When fitting up the cases and filling them with sections, I always select all those that have comb in them, and put them together in cases by themselves. When taking off the first comb honey I find that cases treated in this manner are filled and finisht first, and quite often colonies that have these drawn-out combs to commence on, will fill the second case before those that have starters are only one-half filled.

FOUNDATION FOR HIVES.—I have been advocating for several years half bricks put under corners of hives for a foundation. After I have been using them all this time I find that there has been in use something much better. The principal objections against half bricks is, they are not high enough, for moles and other ground-workers will work the dirt up close to the bottom-boards, thus rotting them. The bees will get under the hives, at times, and many a time valuable queens get under there, merely to get out of sight, and to have the bee-keeper to remove or upset the hive to get at them. I have something in mind that will beat anything put out for a hive-stand, but I don't care to tell just what it is until I have tried it. Part of the idea is obtained from somebody else, but I think it will work.

Cass Co., Nebr.

The Alsike Clover Leaflet consists of 2 pages, with illustrations, showing the value of Alsike clover, and telling how to grow it. This Leaflet is just the thing to hand to every farmer in your neighborhood. Send to the Bee Journal office for a quantity of them, and see that they are distributed where they will do the most good. Prices, postpaid, are as follows: 50 for 20 cents; 100 for 35 cents; or 200 for 60 cents.

Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offer on page 234.

CONVENTION PROCEEDINGS

Proceedings of the Colorado State Bee-Keepers' Convention.

REPORTED BY F. L. THOMPSON.

[Continued from page 215.]

COLORADO BEE AND HONEY STATISTICS.

The Secretary then read statistics of bee-culture in Colorado for 1896 by counties, so far as reports had been sent in. Twelve counties where bees may be kept have not been heard from. The number of colonies in the 13 counties which have reported is 35,306, which is not more than half the total number in the State. The average value of a colony is $3.36, and the average per cent. of increase about 20. The average yield last season was about 32¼ pounds in 13 counties, with an average price of about 10 cents. The following is the average yield by counties:

Otero, 60 pounds; Montezuma, 104 comb, 201½ extracted; Chaffee, 10; Fremont, almost none; Montrose, 40; Morgan, 20; Pueblo, 20; Larimer, 5; Huerfano, 6; Arapahoe, 15; Mesa, 40; Boulder, 15; Weld, 15; Las Animas, 30.

Foul Brood, so far as reported by the persons to whom questions were addrest, exists in Otero, Montezuma, Arapahoe, Mesa, Boulder, Larimer and Weld counties, and paralysis in Arapahoe county. Chaffee, Fremont, Montrose, Morgan, Pueblo, Huerfano and Las Animas counties are free from foul brood. The local associations, so far as heard from, are as follows:

Montrose Co., E D. Nichols, Sec., Montrose; Arapahoe Co., the Platte Valley Bee-Keepers' Association, Geo. R. Lee, Sec., Brighton; and the Denver Bee-Keepers' Association, F. L. Thompson, Sec., Denver; Mesa Co., M. A. Gill, Sec., Grand Junction; Boulder Co., A. M. Preston, Sec., Longmont; Weld Co., H. E. English, Sec., Greeley.

Mr. Adams—I have six copies of the Honey Day edition of the Longmont Times, which contains valuable statistics on Colorado bee-keeping.

Mr. Rhodes suggested that these be given to the Secretary to be placed on file.

Vice-Pres. Porter spoke as follows on

THE NEW BEE-DISEASE.

Last April the bees were all right. The winter had been mild. By the end of April there was something curious in their actions, though nothing to be certain of. By the middle of May they had decreast. There were not enough to cover the brood. Many colonies became discouraged and swarmed out. You could often see a little handful of bees hanging on a weed, with a queen among them. Sometimes these little swarms would unite, and there would be several queens. So it kept on until the first of June. The loss was very great. No reason or theory that I could think of seemed to cover the situation. I at first thought that as the winter had been very mild, and the bees had flown very much, it might have been the ordinary spring dwindling of old age; but the trouble was not universal. It was only around Denver, covering a circle with a radius of about 12 miles. I pronounce it not a disease; but I may find out that I was mistaken. I lost 80 per cent. of my own stock.

If it was spring dwindling, the bees would not have swarmed out.

Vice-Pres. Porter—It has been my experience in Iowa and Wisconsin that bees do become discouraged from spring dwindling and swarm out.

A Member—Was there any honey left in the hives when your bees swarmed out?

Vice-Pres. Porter—Tons of it.

H. Rauchfuss—Our bees acted similarly, but they did not swarm out. They also acted differently in dying in front of the hives, so that the dead bees could be seen. Our best colonies, with young prolific queens, died first. The queenless ones were hardly affected at all. Colonies with little honey also came out well. My theory is as follows: A colony in good condition gathers abundance of pollen; a weak one does not. There were some heavy fogs last spring, which I believe absorbed poisonous substances from the smelter smoke in the atmosphere, and deposited it on the pollen of the blossoms of the cottonwoods, etc. At one of the smelters in Denver a constant spray of water is kept falling down the smoke-stack, in order to render the smoke less deleterious. That shows that moisture will absorb the poison. The disease was only along valleys, where fogs are apt to settle. We lost 300 out of 400 colonies.

Mr. McLain—We at Fort Collins have had the same condition of bees Mr. Rauchfuss described, from spraying. The explanation is ultimately the same—the bees died from poisoning. A neighbor lost 26 out of 75 colonies from spraying, and the rest were decimated. My colonies were weaker in May than in April, and one-third of the queens were missing. A neighbor half a mile away had sprayed his trees, and the next day our bees died.

Mr. Rhodes—I sold an apiary 10 or 12 years ago, and was to attend it until it was a success. It was moved to Argo (a smelter). The bees went back just as has been described. I then claimed it was the smelter smoke. That was before the days of spraying, and the bees were otherwise all right.

H. Rauchfuss—No spraying was done within four miles of our apiary. I do not say it was the smoke, but what the moisture collected from it.

Vice-Pres. Porter—Five years ago, in Highlands, my bees were poisoned from spraying. I saw them at work on the sprayed trees. They shortly died in the way Mr. Rauchfuss' bees died. I have had nothing similar to that since.

The Question-Box was then taken up. The first question (sent from Mesa Co.) was,

BEST METHOD OF WINTERING IN ALTITUDES OF COLORADO OF 4,500 FEET.

Mrs. Booth—I advise leaving the bees on the summer stand. No more top protection than two thicknesses burlap is necessary.

Mr. Rhodes—Mr. Dudley is in about that altitude.

Mr. Dudley—The majority of Utah bee-keepers winter their bees out-of-doors. They usually run the hives together, with leaves or chaff between, and a sawdust bag in the super, with an inch between it and the cover. Some pack separately. Many have double-walled hives, packt the year round.

Vice-Pres. Porter—I am of the opinion that in that altitude and temperature the least expensive way would be to pack on top. Two sacks doubled, making four thickness, keep off the cold and let out the moisture, and make a very complete condition. I have always had good success with this plan. My only trouble was with tight-fitting covers and a propolized cloth. The combs became moist all over. The bees became moist and sweated, and dwindled.

Mr. McLain—The best packing is to pack full of bees. I bought bees in cracker-boxes, with big cracks in them. They were the best and strongest colonies I ever had. If the colonies are weak, then I should advise packing.

H. Rauchfuss—I think bees ought to be packt. Mrs. Booth packs on top only, but her location is sheltered. In box-hives, the combs may be built crosswise, and the bees may winter well. But on frames, the outside bees get chilled. After a cold spell, the bees bring out a handful of dead ones. This is repeated every time the weather is cold. We have some packt in cork-dust. The bees in these hives do not get chilled, and the colonies come out strong in the spring, unless they dwindle for other reasons.

Mr. McLain—I do not pack with bees only, but pack with leaves on top and straw between in rows, with the fronts open. But my strong colonies come out the best.

Mr. Adams—I usually pack. My best colonies are packt in chaff all around.

Mrs. Booth—I had 6 colonies packt together in straw some years ago, but the mice got in and ate them all up.

BEST METHOD OF KEEPING COMB HONEY FROM GRANULATING.

Mr. Adams—Shove it on the market as quickly as possible.

Mr. Sylvester—Have thoroughly cured honey, gathered from the best honey-plants, and keep it in a warm place through the winter. Once I heated some extracted honey so as not to injure the flavor, and stored it in jugs sealed with rosin. By mistake, one jug was left over, and remained liquid five or six years.

Mr. Booth—Mrs. Booth stored some extracted honey in crocks. When it granulated, the crocks were burst by the expansion.

Mr. Rhodes—Some honey will not granulate.

Vice-Pres. Porter—I have never found any honey that will not granulate.

Mr. Rhodes—What I mean is, some honey granulated and some did not, when kept a year in ordinary conditions.

Mrs. Booth—I have kept comb honey over four years without granulating. But in the same case was some that was granulated solid.

Mr. Adams—I don't like to cook my comb honey.

PREVENTION OF SWARMING IN WORKING FOR COMB HONEY.

H. Rauchfuss then exhibited a device used for that purpose. Some time before the flow, two hives are set next each other, and the device applied so as to cover both entrances. One of these hives contains the colony to be operated upon, and the other is empty, containing nothing but frames and starters. The effect of the device is to make one entrance common to both hives. The returning bees fly into an aperture, about one inch high and eight inches broad, and from this could go into either hive at will, were it not for a tongue, which, being pivoted at the rear of the device just between the two hives, determines into which hive the bees shall enter, by being turned one way or the other. Before the flow, the tongue is turned so as to cover up the passage into the empty hive, and the bees became accustomed to entering their own hive through the device. When the flow begins, the comb on which the queen is, is found and placed in the empty hive, on the side next to the hive in which the bees are, and the tongue of the device is turned so as to cover up the passage into the full hive, except that it leaves room for one or two bees at a time to get out. At the same time a super is put on the empty hive. There they find their queen, and commence work, building comb above and below at exactly the same time. Apparently the new state of things just suits them. After three or four days, or after the queen has commenced to lay in the new combs, the old comb is returned to the old hive. The principle is, to prevent swarming by forming an artificial swarm out of the *whole* colony, and part of this work is done automatically. They will not swarm for three weeks. At the end of that time, if the flow continues, the operation may be repeated. This device was made before the Langdon device was, and has been on trial since 1893, being at first used like the Langdon device, to which it proved superior. In 1895 it was used as above described, and was a perfect success in every way. With it comb honey was produced in an out-apiary which was not seen for intervals of 11 to 12 days. It is not patented.

Mr. Dudley was askt to explain a device he had with him, for automatically preventing the escape of a queen with a swarm—but which lets her out and in at other times. It may be roughly described as a little box, about 2½ inches square, and as long as the width of the hive. It is applied to the entrance. Cleats under each end raise it a bee-space above the alighting-board, and a cleat running lengthwise under the rear of the box stops entrance directly into the hive. The bees pass in and out of the hive, through the box, about the middle of the bottom. The bottom of the box is beveled at the rear, so as to afford a passage into the hive when the box is shoved tight against the front of the hive. Under ordinary circumstances, both workers and queen pass in and out of the hive in this way without any zinc to bother them. The front of the box is composed of a piece of queen-excluding zinc, hung so as to swing a little. When the colony swarms, there are too many bees wanting to come out at once to pass through the slit, and so most of the mass presses against the zinc in front. This pressure operates a catch, which lets a piece of T-tin drop, which closes the slit the whole length. The workers eventually pass out through the zinc; but the queen, being generally with the last half of the swarm, is imprisoned, and the swarm returns after an interval. When the bee-keeper makes his tour of inspection, he sees by the position of the projecting end of the T-tin that that colony has swarmed. He can then do as he pleases with it. This device has been used with success on a few colonies. It is not patented.

COMBS VS. EXTRACTED HONEY FOR PROFIT.

H. Rauchfuss—There is a valuable article on that subject by our President, Mr. Aikin, which covers the whole field, in the Jan. 14 issue of the American Bee Journal. It is the best article I ever read on that subject.

HOW TO KEEP THE MOTH OUT OF EXTRACTING COMBS—HOW TO KEEP THE MOTH FROM DISTURBING BEES AGAIN—WILL SULPHURED COMBS BE ACCEPTABLE TO THE BEES?

Mr. McLain—I have sulphured combs a good many times, and never had any trouble about the combs being acceptable to the bees. I don't think there is any, unless the sulphur is very strong.

Vice-Pres. Porter—Mr. Aikin has a large number of combs exposed in his honey-house, with no sign of moths. He uses broad end-bars, so that the combs do not touch each other. This year I stored my combs close together, and reared a great many moths. I piled them so as to leave intervals between, in a 12x12 plastered room, set four sulphur candles going, and killed all the moths. Those sulphur candles are the best thing out. Sulphured combs are acceptable to the bees.

F. Rauchfuss—Do you mean that closed-end frames are exempt from the moth?

Vice-Pres. Porter—I only know of that one illustration.

F. Rauchfuss—Our closed-end frames are not much more exempt from the moth than the others.

Vice-Pres. Porter—Are there two species of moth, one eating wax and the other pollen?

F. Rauchfuss—The only species I have seen here feeds on pollen only, and destroys comb to get to it. But Eastern writers say they feed on wax in section honey also.

Mr. Rhodes—My experience is that the moths here are the same as the moths in Indiana. I judge that we have a moth which destroys combs the same as in Indiana.

WHICH IS THE PROPER WAY TO LIQUEFY EXTRACTED HONEY?

Vice-Pres. Porter—The safest way is to place the vessel in boiling water. But this requires a great deal of caution in liquefying large quantities. In liquefying honey in glass, on a small scale, I now use an asbestos mat. The glass is set on the mat on the back of the stove, next the stove-pipe, and turned occasionally. When a large can is liquefied in boiling water, the outside melts first and gets too hot, while the inside is cold. A good way is first to set the can on its side over the stove, tilting it so as not to come in close contact, and thus melt one side enough to make a channel of melted honey from the bottom to the top, repeating the process with the other sides, and then setting on an asbestos mat next the stove-pipe. Never set the bottom of the can on the stove. I have burst a good many cans by melting the bottom of the honey first. The top cannot move, and acts like a cork.

Mr. Rhodes—How about liquefying by sunshine?

Mr. Rauchfuss—In summer, it can be done in the open air, by setting the vessel in a sheltered place.

Vice-Pres. Porter—I have liquefied a good deal that way, but don't leave a vessel too long in the sun-extractor. The honey will turn dark. The trouble with the sun-extractor for liquefying is, the summer is not the right time to attend to that work. In my experience a sun-extractor cannot be used after the first of September.

Resolutions by Mr. Booth, thanking the Board of Horticulture, Mrs. Shute and ex Gov. Routt for the free use of the room and courtesies extended, and city press for notice taken in reporting the proceedings, were adopted.

The Association adjourned subject to the call of the Executive Committee. FRANK RAUCHFUSS, *Sec.*

Questions AND Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Affected by Bee-Stings—Cleaning Propolis Off the Hands.

1. I have kept bees for 10 years, and I have always handled them without gloves; they have stung me on my hands so I have got my whole system poisoned. I have never taken any notice of bee-stings before, but now when a bee stings me on one of my fingers it is like electricity—it goes through my whole body, and my face swells up as if I had the erysipelas. I itch all over all the time. What can be done for me?

2. I saw in the Bee Journal sometime since (but I can't find it now) a remedy to wash propolis off the hands. Surely you can tell me of something that will wash it off, for I have found no soap that will do it. G. S., Utah.

ANSWERS.—1. Yours is a very unusual case, and I don't know that I can suggest anything to help. Evidently there has been a change in your system, and the hope may be indulged that it may be only temporary, and that you will before long change back to your former condition.

2. Washing-fluid is perhaps the thing you have seen recommended. Strong soap with very hot water will do pretty good work. Put as much lye as can be used without eating the hands, into *hot* water, and that will succeed. I generally use grease because it's handier. Take a bit of butter or other grease, rub thoroughly on the glue, then wash with soap and hot water.

Starting with Bees—Prevention of Swarming.

1. I have never owned a bee in my life, but like honey. I expect to get a start of bees this spring, and have chosen the Italians, and thought one colony would be enough for a greenhorn to start with; but they tell me here that one colony will not do any good alone. It is news to me, but perhaps it is all right. I am taking the Bee Journal, and reading it quite closely, as I don't want to make a failure of the business, but I have not seen anything on that subject. I supposed individual colonies of bees were independent of each other. What is your opinion on the subject? Is it necessary to have two or more colonies to begin with?

2. Is there any way to successfully prevent bees from swarming? H. J. W.

Answers.—1. You're surely doing a bright thing to read up before commencing the actual work with bees, but why don't you get a good text-book? The American Bee Journal is worth more than its cost to you, but it cannot, in the nature of things, give you a complete and systematic foundation as a text-book can. Perhaps, however, you have the text-book, and I'll proceed to your question. You perhaps reasoned that if 20 cattle would do well in a pasture, 19 might do as well or better. If so, you reasoned correctly. If two colonies of bees will do well, one ought in all cases to do as well, and if pasturage is scarce one might do better than two. Don't you believe what they say. And yet I think they're right in advising you to start with two colonies. A greenhorn like you may do some fool thing with one of the colonies to result in killing it, and then you'll have the other to fall back on. Or you may weaken both, so that singly they will amount to nothing the whole season, but by uniting you can make one good, strong colony. Suppose, however, that you're wiser than the rest of us were when we began, and make no mistakes. It may still be better to have the two. You'll have twice the experience at the end of the season, and possibly you may want to make an artificial colony from the two, that you could hardly do from one alone without weakening it too much. There may be other reasons, but you now have probably enough.

2. Now look here. If you're going to ask such hard questions before ever owning a bee, what will you be when you come to have two or more colonies? Well, if you want to make a dead sure thing that a colony will not swarm, kill it with brimstone or blow it up with dynamite. Anything short of that may fail. All joking aside, one of the most difficult things to accomplish is to succeed in preventing swarming without interfering with a crop of comb honey. With extracted honey it's easier. Give abundance of room, let the entrance be ample for ventilation, keep the hive shaded, and you may not be troubled much with swarming. Dadant & Son don't have more than one colony in 20 swarm, and they attribute it mainly to their large hives, holding the equivalent of more than 12 Langstroth frames. They work for extracted honey, but they think the result would not be very different with comb honey. All that can be done here is to give you the general causes to which swarming is attributed. Small quarters, too much heat, and an old queen. Avoid these, and you will have done something to prevent swarming.

Queen and the Sex of Eggs—Storage Room for Honey.

1. How does the queen determine the sex of her eggs?

"Langstroth on the Honey-Bee," in paragraph 144, says: "It is possible that the width of cells and position of her legs when laying in drone-cells," for drones. In paragraph 149: "The pleasant sensation causes preference for worker-cells, sex seemingly determined by size of cells." In paragraph 150: "It seems to be due to fatigue," and that sensation, position of legs, and size of cells don't work.

I had a nucleus last fall late that reared quite a quantity of drones in worker-cells. It was late in the season, and they were weak in bees, and were needing workers and not drones. They are now in good condition, and a fair colony with no drones or drone-cells. I read of workers reared in drone-comb, but never had any. Seems to me that sex is not very clearly explained.

2. Also, for location of storage room for honey: Paragraph 26: "Honey when harvested is stored *in the rear* of the hive *above the brood*, and as near it as possible." Paragraph 454: "1st. So long as bees have an abundance of empty space [combs] *below their main hive* they very seldom swarm; but if it is *on the sides* of the hive, or *above them*, they often swarm rather than take possession of it." Paragraph 459: "This empty comb *must be near and above*, or in *front of the brood*." The foot-note following paragraph 762 would indicate below as being the proper place.

Now as honey is what we are after, and no swarming means stronger colonies and more honey, it would seem that surplus receptacles should be below the brood-nest 1st, and 2nd choice, in front and above; 3rd choice, in rear and above; 4th choice, above; and 5th choice, sides of hive and above.

How is this, anyhow? I'm somewhat muddled, but will try to give plenty of room within reach until I get straightened out. A Seeker.

Answers.—1. I should be very glad to tell you just how the queen determines the sex of eggs, but for the simple reason that I don't know. Perhaps the majority think that it is simply a matter of will on the part of the queen. She wills an egg that shall propuce a queen or a worker, and the egg as it passes out is impregnated. She wills it shall produce a drone, and it passes out without being impregnated. If it be true that she does exercise her will in that way, she seems generally to will that worker-eggs shall go in smaller cells than those which receive drone-eggs. Others think that instead of the will of the queen, mechanical compression or something of the kind connected with position controls the fertilization of the egg. There seems to be a leaning toward this latter view in Langstroth's book. The apparent discrepancy that you mention is not very hard to explain. For altho everything might go on regularly for the laying of eggs in worker-cells, if the muscles that act upon the spermatheca are too fatigued to act, no spermatozoa will pass out to impregnate the eggs.

If I haven't exactly struck the point you're after, please ask again, but remember that I don't know just how the sex of the egg is determined, and I think no one else claims positive knowledge with reference to the matter.

2. You've made out a pretty clear case of discrepancy, and yet I think a very small key will unlock the mystery. Just keep in mind that the natural thing for bees to do is: First, to extend their space downwards; Second, to store their surplus upward. I'm not sure but there may be a trifling mix left in some of the statements, but I'll not take the time to go over each separate item, and with the logical mind you show in your questions, I think you'll make out a pretty good job of reconciliation if I give a rough outline. Bees build from above downward, keeping the brood below, and as they accumulate stores they put them in the upper cells vacated by the hatching brood, and when these fail they next use for storing the the rear and sides. That's in general the natural way, and we oblige them to vary from that by our interference. In the passages you have quoted, some of the time the thought is about room for surplus honey, and some of the time about room for brood. We may give room anywhere, and it will have some tendency to prevent swarming, but room given for brood will be more efficacious than if given for surplus. Keeping in mind that the bees want their brood below and their honey above, if we give them room above they'll use it for storing, and this will allow them to have a chance for more room below for breeding. But if we give them empty space below, they can have that for immediate use for the laying of the queen, and that more directly suits them. So you see that giving room below is the most effective in preventing swarming, but the room below *will not be used for surplus*. That's Mr. Simmins' plan, to keep constantly room to build below, removing the new combs as fast as built, but whether it be on account of the extra work involved, or for some other reason, bee-keepers in general do not take kindly to the plan. All things considered, I should say that altho giving room below is the best for prevention of swarming, you *must* give additional room above, for you want there the fresh work for surplus.

If this helps you out to any extent I shall be glad, and in any case I shall be glad to hear from you again.

Now is the Time to work for new subscribers. Why not take advantage of the offer made on page 235?

The American Bee Journal
OLDEST BEE-PAPER IN AMERICA

GEORGE W. YORK, - Editor.
PUBLISHED WEEKLY BY
GEORGE W. YORK & COMPANY,
118 Michigan St., - CHICAGO, ILL.

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Editorial Comments.

A Honey Champagne Company have filed the necessary articles of incorporation in Los Angeles county, Cal., the objects of which are set forth to be the manufacture of non-alcoholic beverages. So reports Mr. J. H. Martin, in the Rural Californian. He further says: "As long as it is kept non-alcoholic we give the new company our hearty endorsement." So do we. But the "Champagne" part of the name doesn't sound very encouraging.

◆

Reporting New Experiences.—We would like to invite all our readers to make a note of any new experiences they may have with bees during the approaching season, and report them after the season closes. It is nothing more than fair that each should give out information as well as to receive it from others. Let us not be like sponges—simply absorbers, or having to be "squeezed" before letting go of what information we possess. Rather let us all contribute to the general fund of knowledge, and thus aid in the permanent upbuilding and extending of our beloved pursuit.

◆

"Selling Names of Bee-Keepers" is condemned as "a bad policy" by Editor Root in Gleanings. We made a similar suggestion quite awhile ago. We venture to say that had not Horrie, Wheadon, and others been able to get hold of lists of bee-keepers' names and addresses, they would never have gone into the business of systematically swindling honey-producers. We have the names of perhaps 20,000 bee-keepers, but no amount of money would tempt us to sell them to *any* commission firm. The fact is, we believe that reliable commission houses don't resort to sending out pleading letters in order to get trade. If they are all right, they usually get about as much produce as they can profitably handle without soliciting through the use of egotistical and misrepresenting letters.

◆

Apiculture at the Omaha Exposition.—We have received the following letter, which will be of interest to supply dealers and honey-producers:

OMAHA, Nebr., April 2, 1897.

MESSRS. GEO. W. YORK & Co., Chicago, Ill.—

Dear Sirs:—It has occurred to me that you would be interested in the Trans-Mississippi and International Exposition to be held in Omaha, and I would respectfully urge upon you the value of an exhibit of your line, as it is contemplated to make the Apiary Industry Department one of the finest displays ever gathered in any part of the world, and to that end I take the liberty of enclosing herewith the official application form for space.

The Exposition is so centrally located that it will be visited by large numbers of people in the trade from the entire West, as well as Central States and other countries. With $200,000 Government aid, $100,000 preliminary State aid, appropriations from most of the Trans-Mississippi States, and three-quarters of a million dollars home subscription, it bids fair to turn out of great magnitude and importance.

Kindly give this due consideration, and make application for space at your earliest convenience, as I can secure for you several advantages if you act promptly.

Yours very respectfully, R. M. LEWIS.

We hope that all who expect to assist in making an apiarian display at Omaha, next year, will write Mr. Lewis at once, and secure space. Address him in care of the Pacific Express Company, at Omaha.

This Exposition will give bee-keepers and supply-dealers a fine opportunity to advertise their business, second only to to the great World's Fair of 1893.

◆

Wisconsin Foul Brood Law.—Mr. D. D. Daniher has kindly sent us a copy of the new Foul Brood Bill recently past by the Wisconsin Legislature, and which now is the law. All bee-keepers in that State will be glad to read it, and also to comply with its provisions. Here it is:

AN ACT for the suppression of foul brood among bees in Wisconsin.

The people of the State of Wisconsin, represented in Senate and Assembly, do enact as follows:

APPOINTMENT.

SECTION 1.—Upon the recommendation of a majority vote of the members of the bee-keepers' societies of Wisconsin, the Governor shall appoint for a term of two years a State inspector of apiaries, who shall, if required, produce a certificate from the Governor that he has been so appointed.

DUTIES.

SEC. 2.—The inspector shall, when notified, examine all reported apiaries, and all others in the same locality not reported, and ascertain whether or not the disease known as foul brood exists in such apiaries; and if satisfied of the existence of foul brood, he shall give the owners or care-takers of the diseased apiaries full instructions how to treat said cases, as in the inspector's judgment seems best.

DESTRUCTION OF BEES.

SEC. 3.—The inspector, who shall be the sole judge, shall visit all diseased apiaries a second time, and, if need be, burn all colonies of bees and combs that he may find not cured of foul brood.

VIOLATIONS.

SEC. 4.—If the owner of a diseased apiary, honey, or appliances, shall sell, barter, or give away, any bees, honey, or appliances, or expose other bees to the danger of said disease, or refuse to allow said inspector to inspect such apiary, honey, or appliances, said owner shall, on conviction before a justice of the peace, be liable to a fine of not less than fifty dollars nor more than one hundred dollars, or not less than one month's imprisonment in the county jail, nor more than two months' imprisonment.

ANNUAL REPORT.

SEC. 5.—The inspector of apiaries shall make annual report to the Governor of Wisconsin, giving the number of apiaries visited, the number of diseased apiaries found, the number of colonies treated, also the number of colonies destroyed by fire, and his expenses.

EXPENSES.

SEC. 6.—There is hereby appropriated out of any moneys in the State treasury, not otherwise appropriated, a sum not exceeding five hundred dollars per year, for the suppression of foul brood among bees in Wisconsin. Said inspector shall receive four dollars per day, and traveling expenses, for actual time served, which moneys shall not exceed the moneys hereby appropriated, to be paid by the State treasurer, upon warrants drawn and approved by the Governor.

SEC. 7.—This Act shall take effect and be in force from and after its passage and publication.

Approved April 1, 1897.

Crimson Clover.—Mr. A. I. Root, in Gleanings, gave the following interesting report about his piece of crimson clover in Medina Co., Ohio:

At this date, March 15, our crimson clover is a "thing of beauty" and a "joy" to at least *one* individual. I am glad to say that there are acres of it where we dug our potatoes that are a perfect mat of green. Not a leaf has been injured, and the clover has made a considerable growth since the first of December. There is no question about it, it has grown wonderfully during the months of December, January, and February. Of course, we are not *entirely* through the winter yet; but from what experience I have had with the plant, I cannot for a moment believe that this thick, heavy mat is going to be thrown out by the frost. The stand is just about the same on the creek-bottom land, on some that is a little higher, and clear up on the hillside by the windmill. I am a little surprised that it should winter with us season after season, when so many other parts of Ohio report failure. Of course, our land is very rich. The seed was put in after digging a crop of 375 bushels of potatoes to the acre. The last was sown about Aug. 15, but it looks just about as well at present writing as that put in a month sooner.

◆

Our Debt to Bees.—Mrs. L. Harrison, in an exchange, has written thus appreciatively of the valuable work done by bees in the fertilization of fruit-blossoms, thus causing a larger production:

When Columbus discovered America he found no honey-bees here, for their had been no need of any. But when the settlers came they brought apples, pears, quinces, and cherries and their fertilizers, the honey-bees. Nature detests self-fertilization, and we see how this is avoided by the wisdom of an All-Wise Creator.

The apple-blossom is a perfect flower, containing both senses in one, with the stamens and anthers waving above the germ; why then does it need a foreign agent to insure fertilization? On a close examination, we find that when the germ is in season for the fertilizing powder, the anthers waving above have not burst. When the germ is ready, Nature spreads a rich feast of delicious, fragrant nectar, and invites the bees to the nuptials. They come, like millers, with flour on their bodies, and with their pollen-baskets filled with it, kneaded into bread, and as they load up the nectar they leave some of the fertilizing powder in exchange.

◆

Spraying Fruit-Trees.—Bulletin No. 36 of the Missouri Agricultural Experiment Station, Columbia, by Prof. J. M. Stedman, reports the results of elaborate experiments with means of preventing two insects very injurious to apple trees, and describes cheap and efficient methods of combating them. In the letter announcing Bulletin No. 36, we find this paragraph, which shows that at least one of the Experiment Stations is sending out the right kind of advice:

"Never spray a fruit-tree while it is in blossom; serious injury to the blossom and imperfect pollination may result, and in many instances honey-bees will be killed."

Bulletin No. 36 is for free distribution, and may be had by writing to the Director of the Experiment Station, Columbia, Mo.

The Weekly Budget.

Mrs. Emery Newell, of Kane Co., Ill., made the Bee Journal office a pleasant call recently. She will care for the bees this year—some 20 colonies. Mrs. Newell is quite enthusiastic, and will doubtless make a success of the business. We hope she will.

The W. T. Falconer Mfg. Co. have publisht a neat 16-page and cover pamphlet, entitled "Successful Bee-Keeping," written by that very competent bee-master, Mr. W. Z. Hutchinson. They mail it with their catalog of bee-keepers' supplies when a 2-cent stamp is enclosed. It should prove a good advertising scheme. It certainly is a unique and valuable 4½x6 inch pamphlet.

Mr. G. Johnson, of Clark Co., Wis., wrote us March 29: "I would not try to keep bees without the American Bee Journal. Give it to the fraud commission merchants strong. Hit them straight from the shoulder. Success to the 'Old Reliable.'"

Miss Mathilda Candler, of Grant Co., Wis., called at this office a week or two ago. She has been in Chicago all winter, pursuing a course of study, and will now return to her bees again. She has some 60 colonies, and has made quite a success of it for a number of years.

Mr. Geo. R. McCartney, the inventor of a combined section-press and foundation-fastener, advertises the same in another column this week. Read what he says, and send to him for a circular giving full description of the machine. You will be interested in it, and he will be glad to sell it to you.

Mrs. L. C. Axtell, of Warren Co., Ill., besides being an expert bee-keeper, also keeps poultry. In a letter she wrote thus wisely:

"Poultry seems like little business to some, I suppose, but as a side-issue it pays well. It is only as we look after and care for the littles that we can get ahead much."

Mrs. Desdemonia Smith, of Canyon Co., Idaho, wrote us as follows when renewing her subscription:

"I prize the Bee Journal, and when it comes I devour with avidity the different articles. I especially enjoy Doolittle's and the Dadant's contributions. I am an amateur bee-keeper, and have had some experience that I may write up and send to the Bee Journal in the near future."

Mr. F. A. Snell, of Carroll Co., Ill., wrote us as follows, April 3:

Friend York:—You are doing a good work for bee-keepers. You make it hot for the frauds, and merit the favors of all apiarists."

Yes, sir, we mean to be death to frauds that are trying to swindle bee-keepers. Just put that down. We invite all our readers to help clean them out.

Mr H. E. Hill, of Brevard Co., Fla., has kindly sent us two neat little sample sections of honey, 2⅜ inches square, gathered from pennyroyal. In the letter accompanying the honey he writes:

"I send you a taste of pennyroyal honey and sample of the bloom. I would like to know how, in your opinion, it compares with California sage. Pennyroyal blooms here from December until March, and I think the quality is in every respect first-class."

The honey came all right, and we wish to thank Mr. Hill for his kindness. The color is almost the same as white clover or basswood honey of the North, but the flavor—well, it tastes fine as a medicine. We should say that the sage honey is superior—at least, we could better eat it regularly than the pennyroyal honey. But doubtless we could soon *learn* to like the Florida specimen all right.

Mr. Samuel Cornaby, of Utah Co., Utah., when sending a new subscriber's name to the Bee Journal lately, wrote:

"I am sending this order and furnishing my own stationery and stamp purely for the good of apiculture and the Bee Journal."

We want to thank Mr. Cornaby for his kindness, and his appreciation of the Bee Journal. We like such a testimony. It makes us feel like pushing on, and doing still more for the good of bee-keeping, if we possibly can. But suppose *every* present subscriber should, during the next month, imitate Mr. Cornaby's example. Our list would just be doubled, and then—well, it wouldn't be long until you'd see such an improvement in the old American Bee Journal that you wouldn't know it. You give it twice the number of subscribers it now has, and we'll guarantee you'll get just about twice as good a paper for your money. We are ready to do our part as soon as we have the paid list to warrant the extra expense necessary to put the Bee Journal up to the mark we have long had in mind for it. Our plans so far exceed our capital, that until the latter is increast the former must simply wait.

☞ This is a good time to work for new subscribers.

The Funniest Book of the Century

"SAMANTHA AT SARATOGA; or RACIN' AFTER FASHION."

By JOSIAH ALLEN'S WIFE.

Illustrated with Over 60 Drawings by F. Opper, the Greatest Comic Artist in New York.

Over 100,000 copies of the agents' edition in expensive binding were sold at $2.50 each. This premium edition contains 374 pages, and gives *all* the reading matter and *all* the illustrations the same as the copies which sold at $2.50 each. Over 200,000 copies of the premium edition have already been sold.

THERE IS A BUSHEL OF FUN IN EVERY CHAPTER.

Its Pictures are Just Killing

"I would tear a man lim' from lim' if I see him a tryin' to flirt with you."

This book was written under the inspiration of a summer season 'mid the world of fashion at Saratoga, the proudest pleasure resort of America. The book takes off Follies, Flirtations, Low-necked Dressing, Dudes, Pug-dogs, Tobogganing, and all the extremes of fashionable dissipation, in the author's inimitable and mirth-provoking style.

Children and grown-up people alike read with rapturous delight the story of Samantha's "tower" to Saratoga, accompanied by her "wayward pardner," Josiah Allen. It is written in a vein of strong common sense, as pure and innocent as the prattle of a child, which keeps the reader constantly enjoying an ever fresh feast of fun.

* * *

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This popular ladies' journal, now in its twenty-fourth year, is as readable and attractive as the best writers and artists can make it. It is an unrivaled high-class magazine of general and home literature, profusely illustrated with exquisite drawings.

The Woman's Home Companion has no equal in the excellence of its special departments devoted to Fashions, Fancy Work, Housekeeping, Floriculture, Talks with Girls, Mothers' Chat, Home Adornment, Children, etc. Of the noted writers who will contribute their best work to the columns of the Companion during the coming year we have space to name only a few: Mrs. Mary J. Holmes, Josiah Allen's Wife, Opie Read, Harriet Prescott Spofford, Julia Magruder, Hezekiah Butterworth, and many others. The Companion gives 24 to 32 pages, size 11 by 16 inches, each issue, printed on fine paper and put into a handsomely illustrated cover. Specimen copy free upon request.

To Boom Circulation We Make the Following Liberal Clubbing Offer:

SAMANTHA AT SARATOGA, Agents sold them for $2.50 each, but say	$1.00
THE AMERICAN BEE JOURNAL (Weekly) One Year, Cheap at	1.00
WOMAN'S HOME COMPANION One Year, Equal to magazines costing	1.00
Total in Value,	$3.00

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Address for further information—

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SMOKERS and FOUNDATION

We do not catalog the Quinby or Hill Smokers this year, but there may be some who prefer these styles. We still have a few, and offer them at these special prices to close out:

The Quinby—2-inch barrel, single-blast, 35c.; postpaid, 50c. 2½-inch, double blast, 60c.; postpaid, 75c.
The Hill—3-inch barrel, 40c.; postpaid, 60c.

VanDeusen Thin Flat-Bottom Fdn.

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Or In Exchange for
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GUS DITTMER,
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On FOUNDATION COMB to introduce
Forrest New Method of Sheeting Wax by Automatic Machinery.

Write for descriptive Circular Price-List and Samples. N. B. FORREST,
15Atf AUBURN, N. Y.
Mention the American Bee Journal.

Tested Italian Queens 90 cts. Warranted 75 cts. per return mail. Tested Queens were reared late last fall. I make Queen-rearing a specialty.

DANIEL WURTH,
15Atf FALMOUTH, Rush Co., IND.
Mention the American Bee Journal.

General Items.

Did Fairly Well.

My bees did fairly well in 1896, yielding 430 pounds of section honey from six colonies.
ROLLIN S. FILLMORE, M. D.
Marshall Co., Kans., April 3.

Bees in Good Condition.

I took my bees out of the cellar to-day, and they had a fine flight. All are in good condition except one colony. They have considerable sealed brood and larvæ.
H. STEINFORT.
Jefferson Co., Wis., March 29.

Getting Bees to Work on Meal.

Some correspondent asks what will draw bees to work on meal for bee-bread or pollen in the spring before blossoms appear. I have kept bees 25 years, and I never failed to get the bees on it within 15 minutes, if a few drops of essence of anise are sprinkled near it.
C. HODGKINS.
Cheshire Co., N. H.

All in Pretty Good Condition.

The average yield per colony was about 100 pounds of honey last year, in this neighborhood. I wintered about 60 colonies on the summer stands, which are all alive and in pretty good condition. I am very well pleased with the "Old Reliable."
LORENZ SEIBERLICH.
Ozaukee Co., Wis., March 29.

Trying Year on Bees.

I have 17 colonies of bees—16 in No. 1 condition. The past year was a trying one on bees. I fed 400 pounds of sugar during the fall, winter, and spring, while my neighbors just let their bees go.

I need the American Bee Journal in my business. There are good propects for honey this year.
A. R. YANDELL.
Scott Co., Ark., March 28.

Bees Breeding Up Fast.

The past winter was a hard one on bees in this part of the State. I have heard of a great many bees near me that starved and froze to death, tho my loss is very small. The prospects for a honey crop are good. The bees are breeding up as fast as I ever knew them at this time of the year. They have been gathering pollen from the elm and maple for some time.
JACOB FRAME.
Braxton Co., W. Va., April 1.

Spring in All Its Glory.

I made a success in changing my bees last week from box-hives to movable-frame hives. March has been our winter month here, but spring has opened now in all its glory. The fruit-trees are beginning to bloom, and the wild flowers. The bees are doing finely on their foundation. This is my first experience in the bee-business, except cutting several bee-trees. I have a good many to cut this spring.
W. A. PELLEW.
Nevada Co., Cal., April 1.

Expects a Good Year.

Bees came through the winter out-doors without loss. All are strong, and lots of young bees taking their first flight every fine, sunshiny day. They workt on maple blossoms before the last freeze, which killed most of the blossoms. You no doubt know that the maple trees do not all bloom at the same time—some of them are just in

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Send us **Two New Subscribers** to the Bee Journal (with $2.00), and we will mail you a copy of Prof. Cook's book FREE as a premium. Prof. Cook's book alone sent for $1.25, or we club it with the Bee Journal for a year—both together for only $1.75. But surely anybody can get only 2 new subscribers to the Bee Journal for a year, and thus get the book as a premium. Let everybody try for it. Will you have one?

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Pet Stock and Incubators if conducted according to "The Chautauqua Guide to Big Profits" just out and sent postpaid with our 1897 Catalogue for 4c to help pay postage, etc. Best eggs and stock cost no more if purchased of us, you can then sell your product to us and thousands others for high fancy prices. We own 300 acres most elegantly adapted to poultry. CHAUTAUQUA POULTRY & PET STOCK FARM, Box 17 KENNEDY, N.Y
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bloom now, and the box-elders have not opened their blossom-buds, but are swelling out nicely. The elms are budding out also, and the grass is so pretty and green. I think that the white clover will yield some nectar this year, as we have had none for three years to amount to anything. With the abundance of rain we have had I think this will be a good year for the bees.

D. C. McLEOD.
Christian Co., Ill., April 1.

◆

Practically All the Bees Lost.

We had bad—yea, the worst luck in wintering our bees, and simply have to commence anew.

F. L. RICHTER.
Cass Co., N. Dak., April 1.

◆

Wintering Finely.

My bees have wintered in fine condition without 2 per cent. loss. They are carrying in pollen quite lively to-day from pussy-willow.

I am well pleased with the stand the American Bee Journal is taking against dishonest commission merchants and other frauds. And if the editor gets into any trouble I will do my part to help him out. Long may he prosper.

L. E. EVANS.
Lenawee Co., Mich., March 31.

◆

Wintered Without Loss.

I am taking three bee-papers, and would not like to spare any one of them. How a bee-keeper can get along without taking at least one, is more than I can understand.

My 48 colonies have come through this far without losing any.

I tried Mrs. A. J. Barber's candy recipe, on page 169, and I tell you it is "boss." I forgot to put in the soda at first, so I melted some over again, put in the soda, and I was surprised. It increast the amount (in bulk) about one-third, or nearly that.

ISRAEL OVERHOLT.
Ontario, Canada, March 31.

◆

A Real Canadian's Report.

EDITOR YORK:—I seldom see any reports in the excellent American Bee Journal from Canada, altho I fancy most of our bee-keepers are subscribers. I have had some questionings as to whether I should renew my subscription or not. The very unfriendly and selfish attitude assumed by the United States Government towards this Dominion in its legislation, to-wit: the alien labor, and the new tariff bills—only too clearly show that you want to have nothing to do with us. You, of course, are a mighty big country, and so long as England opens freely her markets to you, I suppose you can get along without us, and this prompts us to say that we can get along without you, and narrowing this down to the case in point, we have a very good bee-journal of our own—the Canadian Bee Journal—and if all our bee-keepers would support it and stay away from you, it would soon be much better.

I have been keeping bees for a number of years with somewhat varied success. Three years ago I had about 100 colonies, and in the spring of 1895 my prospects were never brighter, but on May 10, and following nights along until the 20th, we were visited with unusually severe frosts that killed the clover, and so completely destroyed the basswood growth that it was thought that even the trees would die. This was followed by extreme drouth and heat, and everything that bees could work upon became so completely dried up that on Aug. 1 we found that we not only had no crop, but that the bees were starving in the hives. I could not undertake to feed so many, so I killed off some, gave away others, and then doubled up until I reduced to 50. These I fed three barrels of sugar, and then only about one-half of them were fit for winter, and altho most of them came through they were mostly so weak in bees, and so many queenless, that the doubling up had to be

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Send for our new catalog.
"Practical Hints" will be mailed for 10c. in stamps. Apply to—
Chas. F. Muth & Son, Cincinnati, Ohio.
Mention the American Bee Journal.

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SEE THAT WINK!
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repeated, so that when the honey season opened last year I had only some 20 colonies to begin the season with, and many of these so weak that they did not swarm early, and some not at all.

However, I took some 1,400 pounds of extracted and 200 pounds of comb honey, and increase to 47.

Buckwheat yielded well last fall, and they went into winter quarters in very good condition, and I am encouraged now to find that they have all past the winter safely, and seem strong enough to run the gauntlet of even a cold spring, which we may possibly have.

Last season was an exceptionally good one, and those who had their bees in good condition in the spring reapt an abundant harvest.

Mr. Samuel Rinsey, some 10 miles from here, commenced the season with 8 colonies, took 1,000 pounds of honey, and increast to 46. Who can beat this?

I use a 9½x4½ inch frame, inside measurement, and from all I have read on the subject I believe it to be as near the right size for all purposes as can be devised. I have queen-excluders and bee-escapes, but avoid the use of them as much as possible. By using full sheets of foundation in the sections I can get on nicely without excluders, and by extracting late in the day, and having some help so as to do the work quickly, I need no bee-escapes.

Last season I got some help and extracted after 6 o'clock, and we just had a nice time—very little bother with the bees in the extracting-room, and all quiet the next morning, and my neighbors undisturbed.

Dummies—I have tried these, and gave them up for a bad job. Firstly, the bees, after being in a day, thinking the quarters too small, got up and left. I, however, captured them and returned them to the hive, but the next day they cleared out again, and were again captured, but before returning them I took out the dummies, and they went to work all right.

I tried it with another swarm with better success in that respect, but they staid just 14 days, left the hive nearly full of drone-comb, and just 24 queen-cells. I had section boxes on both these swarms, with queen-excluders, so that they had room enough, but did not like to be so hampered in the brood-nest, and left.

I like bee-work very much, and I am hoping for a good season again. I also like the American Bee Journal very much, but just hate to send my money to be spent amongst a people that are doing their level best to bar us out of any business dealings with them.
A. BOOMER.

Ontario, Canada, March 23.

[Well, Mr. Boomer, we couldn't help smiling at your seemingly trying to think that the American Bee Journal is to blame for the action of our Government. Why, bless you, *we* don't make the laws of this country. But we are sure that if we could have that privilege we'd make a few that would help to clean up the country morally, any way; and then the financial improvements would follow naturally enough. But don't you ever let this big country's actions, in any line, cause you to deprive yourself of the weekly visits of the old American Bee Journal. We can't have too many "Boomers" of the right kind to boom on our list of readers.—EDITOR.]

Honey Crops and Drouths.

The matter of a honey crop is one of no little perplexity. Sometimes it seems hard to tell why bees gather no honey. There seems to be an abundance of flowers, the weather seems favorable, and everything seems propitious, and yet the bees gather no stores. In Michigan there were several years of great honey-drouth, which indeed, I believe, was true of most of the Eastern States during the same year. In those

Page & Lyon Mfg. Co. New London, Wisconsin,

Operates two sawmills that cut, annually, eight million feet of lumber, thus securing the best lumber at the lowest price for the manufacture of

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that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polisht on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equipt with best machinery, all combine to enable this firm to furnish the

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The Monette Queen-Clipping Device WORKS LIKE A CHARM. With it I have clipped 30 queens, all in one day, when examining my bees. WM. STOLLEY, Grand Island, Nebr.

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I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now.
DR. GEO. LACKE, Newburgh, Ind.

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☞ A sample of either honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

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Grade and Prices of Bees and Queens	April May June	July Aug. Sept.
Untested Queen	$ .75	$ .65
Tested "	1.50	1.25
Select Tested Queen	2.50	2.25
Best Imported "	5.00	4.00
One L Frame Nucleus (no Queen)	.75	.50
Two " " "	1.50	1.00
Full Colony of Bees " (in new dovetailed hive)	5.00	4.00

We **guarantee** our Bees to be free from all diseases, and to give entire satisfaction.

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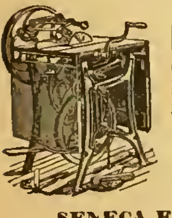

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9D9t **FREMONT, MICH.**
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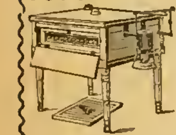

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SEE HERE, Friend Bee-Keeper, the best goods are none too good, and the lowest prices are none too low for the present times, so down go the prices for 1897 on **Full Line of Bee-Keepers' Supplies.**

I defy competition in quality and workmanship. **Working Wax** into Foundation when sent to me, a specialty. Write, without fail, for Catalog. My prices are worth looking at. Wax wanted at 26c cash, or 29c in trade, delivered. August Weiss, Hortonville, Wis.

6A1 *Mention the American Bee Journal.*

Early Italian Queens

Up till the middle of April at these prices:
Untested, 75c.; Tested, $1.25.

E. L. CARRINGTON,
5A17t **De Funiak Springs, Fla.**
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BEST ON EARTH!!

18 years the Standard. The 4-inch "Smoke Engine." Is it too large? Will it last too long? Will save you lots of money and bad words. Send for Circular. 6 sizes and prices of Bingham Smokers and Knives.

T. F. BINGHAM, Farwell, Mich.
5Atf *Mention the American Bee Journal.*

years there were great drouths, more extensive and long-continued than had ever been known before. From my observation I believe we may safely assert that any continued drouth, even though early in the season, will be very prejudicial to honey-production. This is very evident in California. With an abundance of rainfall in winter here, if we may judge by past experience, we are almost sure of a good crop. There seems to be just one exception, even though the rainfall is abundant, there does come at rare intervals hot, drying winds which seem to be almost as inimical to nectar-secretion as the drouth. I have been led to think of late that very likely in the East a long, dry winter with little rainfall may have the same effect that the winter drouth produces in California. We usually think that it is enough if we have rains during the season of nectar-secretion; but from the experience in California it seems equally necessary that there should be abundant rains at other seasons of the year. If we could be sure of copious rains, and warm, genial weather during the time of the flowers, I believe we could safely predict a full crop of honey.

I am glad to report about 23 inches of rain for this region up to the present date (April 1). With the exception of one rain, this has come so gently that every drop has done good; thus not only bee-keepers, but all agriculturists, are rejoicing over the prospects of bountiful harvests. The fruit crop for the coming year is almost sure to be large, while the grain crop promises to be greater than ever before.

Los Angeles Co., Cal. A. J. COOK.

Goldens are Fine Workers.

I put into winter quarters 24 colonies of bees, and came out with 21. They are in fine condition. I have the golden beauties, and they are the finest woskers I ever saw.

J. M. CLIFFORD.
Rains Co., Tex., March 29.

Good Prospects for a Honey Crop.

Bees have wintered well on the summer stands. I lost only one colony out of 84. The prospects for a honey crop are better than for three years past.

ALVIN L. HEIM.
Warrick Co., Ind., March 31.

Difference in Management.

I cannot be without the American Bee Journal as long as I keep bees. One of my neighbors produced about 300 pounds of honey from 15 colonies last year, while I got 3,000 pounds from 31 colonies, spring count. We have the same kind of bees, because he got his of me, and it must be the management that makes the difference. We live only ½ mile apart.

J. GUDERIAN.
Olmsted Co., Minn., March 29.

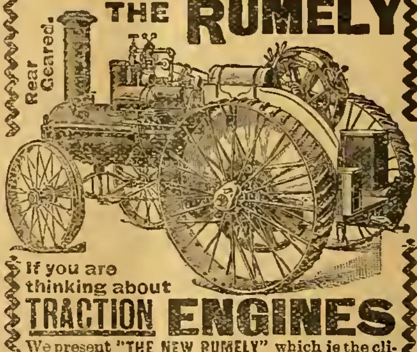
A Double Lesson Learned.

The weather is nice and warm here now. The soft maples are just beginning to bloom. The bees have been exercising themselves quite lively the last few days

I believe the bees generally wintered well in this part of the country. My own loss was about the heaviest I have heard of. I lost about 15 per cent. About half of what I lost starved to death. I knew that they were a little light in stores, but I have many times carried colonies through until spring on a less amount of honey. The trouble was, this winter, that there was so much warm weather, and the bees could fly so much that they used a great deal more honey than usual. The others were lost by the covers being accidentally blown off, and the bees getting wet, and then the weather turning suddenly cold. At all events I have learned a double lesson—be sure they have plenty of stores in the fall, and that the covers are well weighted down.

ED JOLLEY.
Venango Co., Pa., March 30.

THE RUMELY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Adel
Albino

Texas Queens!

Dr. Gallup says they are the best he has in his yard.

J. D. GIVENS, Lisbon, Tex.
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JOHN NEBEL & SON, High Hill, Mo.
Mention the American Bee Journal. 4Atf

Convention Notices.

Illinois.—The spring meeting of the Northern Illinois Bee-Keepers' Association will be held Tuesday, May 18, at the residence of H. W. Lee, at Pecatonica, Ill. All are cordially invited to attend. Means of conveyance will be at the station for the benefit of those coming on trains. B. KENNEDY, Sec.
New Milford, Ill.

Connecticut.—The 6th annual meeting of the Connecticut Bee-Keepers' Association will be held at the capitol at Hartford, May 5, at 10:30 a.m. Let all interested in bee-culture make an extra effort to be present.
Waterbury, Conn. MRS. W. E. RILEY, Sec.

See the premium offer on page 235!

HONEY and BEESWAX

MARKET QUOTATIONS.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

Chicago, Ill., Mar, 19.—Fancy white, 11@12c.; No. 1, 10@11c.; fancy amber, 9c.; No. 1, 7c.; fancy dark, 8c.; No. 1, 7c. Extracted, white, 5@7c.; amber, 5@6c.; dark, 4½c. Beeswax, 25@27c.

Stocks are working down, but there is no improvement in price. The season for comb honey is drawing to a close. Any one intending to market in the cities should do so now.

Albany, N. Y., Mar. 20.—Fancy white, 12-13c.; No. 1. 11-12c.; fancy amber, 9-10c.; No. 1, 8-9c.; fancy dark, 7-8c.; No. 1, 6-7c. Extracted, white, 5-6c.; dark, 3½-4c.

Demand is all that could be expected at this season. Stock on hand small.

Indianapolis, Ind., Feb. 20.—Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Boston, Mass., Feb. 20.—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Cleveland, Ohio, Feb. 20.—Fancy white, 14½@15c.; No. 1 white, 12½@13c. Extracted, white, 6@7c.; amber, 4½@5½c. Beeswax, 22@25c.

There is not very much honey in our market Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

St. Louis, Mo., Feb. 19.—Fancy comb. 12@@13c.; No. 1 white, 11@11½c.; amber, 9@10½c.; dark, 7@8½c. Extracted, white, in cans, 6@7c.; amber, in barrels, 4@4½c; extra, 5c.; dark, 3@4c. Good demand for barrel stock—comb slow sale. Beeswax, 23@23½c.—prime finds ready sale at 23½c.

San Francisco, Calif., Apr. 3.—White comb. 9-10c.; amber, 5-7c. Extracted, white, 5-5½c.; light amber, 3½-4c.; dark tule, 2¾c. Beeswax, fair to choice, 24-26c.

Philadelphia, Pa., Feb. 2.—Fancy white comb, 12-13c.; fancy amber. 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3½-4c. Beeswax, 25c.

Season is getting over for comb honey—very little demand. Extracted in good demand.

New York, N. Y., Apr. 10.—White comb, 10@11c.; amber, 8@9c.; dark, 6c. Ther is a fairly good demand for comb honey yet, and it keeps coming in small lots. Extracted is quiet at unchanged prices. The demand for buckwheat extracted has ceast, and no more sale for it. Beeswax is quiet at 26@27c.

Cincinnati, Ohio, Apr. 9.—Demand is slow for all kinds of honey, with a fair supply. Comb honey, 10@13c. for best grades; extracted, 3½@6c. There is a fair home demand for beeswax, with a fair supply, at 22@25c. for good to choice yellow.

Kansas City, Mo., Apr. 10.—No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 9@10c.; No. 1 dark, 8@9c. Extracted, white, 5@5½c.; amber, 4@4½c.; dark, 4c. Beeswax, 25c.

Detroit, Mich., Mar. 12.—No. 1 and fancy white comb, 11-12c.; other brands, 7-10c. Extracted, white, 5-6c.; amber and dark, 4-5c. Beeswax, 24-25c.

Minneapolis, Minn., Feb. 20.—Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Buffalo, N. Y., Apr. 2.—Our market continues about 10-11c. for fancy honey, occasional sales at 12c. Some lots hang fire, but anything that is beyond criticism sells very well. Com on ranges from 8-5c. Extracted, 4½-5½c., as to quality, etc.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN,

Kansas City, Mo.
C. C. CLEMOMS & CO., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & CO., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
WILLIAMS BROS., 80 & 82 Broadway.

St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.
S. H. HALL & CO.

Milwaukee, Wis.
A. V. BISHOP & CO.

Boston, Mass.
E. E. BLAKE & CO., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. MCCULLOCH & CO., 380 Broadway.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central Avs.

Honey - Clovers !

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
Alsike Clover........	.70	$1.25	$3.00	$5.75
Sweet Clover (white).	.70	1.20	2.50	4.75
White Clover...	.90	1.60	3.75	7.00
Alfalfa Clover........	.60	1.00	2.25	4.00
Crimson Clover.......	.55	.90	2.00	3.50

Prices subject to market changes.

Add 25 cents to your order, for cartage, if wanted by freight.

Your orders are solicited.

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CHICAGO, ILL.

One Cent Invested in a postal card will get my large Catalog of All Root's Goods. Send list of what you want, and get price.

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Mention the American Bee Journal.

Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Age at Which a Queen Lays.

Query 47.—How long, on the average, after a queen emerges from her cell before she begins to lay?—IND.

J. A. Green—10 days.

E. France—I don't know,

Mrs. L. Harrison—10 days.

Prof. A. J. Cook—8 or 9 days.

Jas. A. Stone—About 10 days.

Dr. C. C. Miller—About 10 days.

G. M. Doolittle—From 8 to 10 days.

Dr. J. P. H. Brown—In about 10 days.

W. G. Larrabee—From 1 to 2 weeks.

H. D. Cutting—About 7 days is the average.

Chas. Dadant & Son—6 to 10 days, on the average.

Eugene Secor—According to the best authorities, in about 7 days.

J. M. Hambaugh—From 9 to 15 days, all conditions being favorable.

C. H. Dibbern—About 16 days, I believe, is the rule, but it varies some.

R. L. Taylor—About 8 days during the honey season; at other times, longer.

Dr. A. B. Mason—About 8 days, but I have had them put off the matter for 15 days.

Rev. M. Mahin—To give the average is not easy. I would guess about 14 days.

P. H. Elwood—Ask the queen-breeders. Probably about 10 days, on the average.

Emerson T. Abbott—That depends entirely on circumstances. I am not able to say what the general average is.

A. F. Brown—5 to 7 or 8 days. It depends on weather and strength of colony. During a honey-dearth, two weeks or more.

G. W. Demaree—In my locality, in the honey season proper, the average is about 11 days. But the time varies with the season. In the early spring, and the late autumn, the time is uncertain.

J. E. Pond—This question was fully answered a few weeks ago. The general rule is this: About 16 days from egg to queen; from 2 to 8 or 10 days after the queen leaves the cell before mating; and eggs found in 6 hours or more after mating. Bad weather may interfere with the marriage flight, but ordinarily the above is correct.

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An honest, efficient remedy for all Fevers, Headaches, Colds, Neuralgia, Grip, Rheumatism, etc. A general service remedy that'll please you, OR MONEY REFUNDED.

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J. M. Jenkins, Wetumpka, Ala.

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The American Bee-Keeper

[monthly, now in its 7th year]

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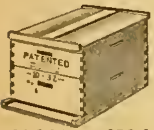
JAMESTOWN, N. Y.



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of 50 hives, $50 for the best 100 Danz. sections
" 25 " 25 " 50 " "
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" 10 " 10 " 20 " "
" 5 " 5 " 10 " "

☞ Further particulars regarding the premimums, also special catalog of the Danzenbaker Hive and System, furnisht on application. Address,

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One Colony of Italians on 9 Gallup frames, in light shipping-box $6 00
Five Colonies..... 25 00
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1 untested queen. 1 00
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1 tested Queen... $1 50
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1 select tested queen 2 00
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Select tested queen, previous season's rearing 4 00
Extra Selected for breeding, THE VERY BEST.. 5 00
About a Pound of BEES in a Two-frame Nucleus, with any Queen, $2.00 extra.

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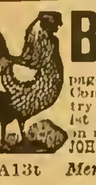
Mention the American Bee Journal



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OUR LARGE GUIDE for '97 just out. Something entirely new. 100 pages. Printed in finest colored work. Contains everything pertaining to Poultry in full. **PRICES REDUCED** on 1st Prize Winners and Eggs. Postpaid on receipt of 15 cents, if you write now.
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10A13t *Mention the American Bee Journal.*

20th Year **Dadant's Foundation** 20th Year

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Because it has always given better satisfaction than any other.

Because **IN 20 YEARS** there have not been any complaints, but thousands of compliments.

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What more can anybody do? **Beauty, Purity, Firmness, No Sagging, No Loss. Patent Weed Process of Sheeting.**

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No. 1 Snow-White.		No. 1 Cream.	
500 for	$1.25	500 for	$1.00
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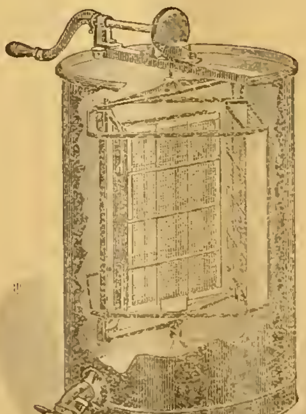

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They are used by all leading bee-keepers. If you would get the latest and best, see that our name is on them.

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AMERICAN
BEE JOURNAL
DEVOTED EXCLUSIVELY TO THE INTERESTS OF HONEY PRODUCERS

37th Year. CHICAGO, ILL., APRIL 22, 1897. No. 16.

Contributed Articles

Another Non-Swarming Device Described.

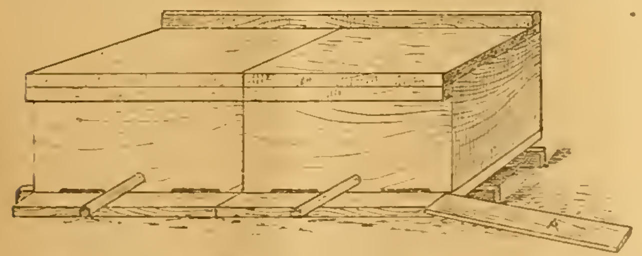
BY DR. E. GALLUP.

I herewith send a diagram and description of Harding's Non-Swarming Device. It can be applied to any shape of hive. Set two hives close together, side by side; bore an inch hole in the center of each hive just above the entrance, and insert a tin tube 6 inches long. Now, if I have the right understanding, just before swarming time, close the main entrance to hive No. 1. All the workers come out through the tube, and cannot get back, consequently they go into the adjoining hive. In about four days unclose the entrance to hive No. 1, and close up hive No. 2. This throws all the workers back into No. 1. You will readily see that this discourages swarming, and if queen-cells are sealed, they will be torn down, etc. The workers will store honey very rapidly—in fact, just as fast in one hive as the other. One can transpose the worker force and all young bees that come out for their first flight, and, I think he said, about twice changing was sufficient to discourage swarming for the season.

There ought to be some arrangement to give water, also for ventilation to the closed hive for the time it is closed. That is my suggestion. Of course, California bee-keepers in large apiaries are not troubled with too much swarming, as a general rule.

With the above explanation, and the accompanying diagram, any one can try the experiment to suit himself. Setting two hives together will economize ground in the apiary, etc.

There may be objections to the above plan, such as balling the queen by compelling so many strange bees to go into another hive, yet I have not had any trouble in transferring hives when bees are gathering honey rapidly. Still, there will be trouble at seasons when foraging is not abundant. I have lost queens by transposing to prevent robbing and to strengthen up a weak colony, by not caging the queens at the time, away back, years ago. Still, we have to learn everything by experience, or what others tell us. I had to learn to walk by experience.



Harding Non-Swarming Device.—A, Entrance-Closing Board.

Mr. Harding is an old, practical bee-keeper, and thinks he has solved a problem that will be of value to some.

Orange Co., Cal.

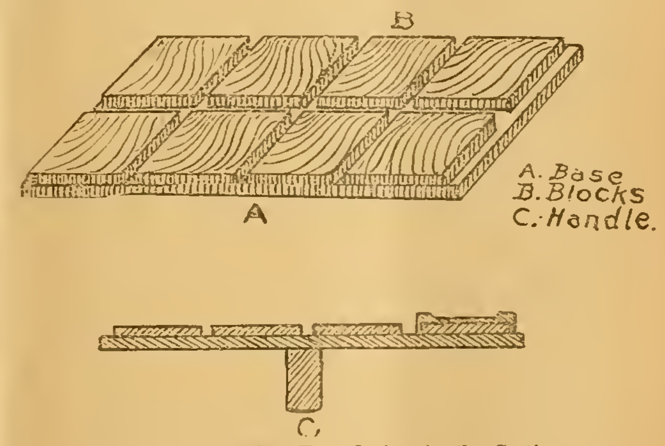
⁂

Fastening Foundation and Wiring Frames.

BY B. F. ONDERDONK.

The American Bee Journal is ever a welcome guest with me, interesting and instructing beyond any other in our pleasant occupation. Dr. Miller's replies are usually replete with information. I note on page 103, advice as to fastening foundation and wiring. I think the following a better way:

I use a spirit lamp under a small tin basin (4 inches in diameter) containing some good beeswax, keeping it well melted, not too hot, and using a straight strip of tin, 7 inches long by 1½ inches wide. Dip what it will hold, and let the wax run into the saw-kerf, by holding the frame diagonally about 30°. One dipping will run rapidly half the length of the frame; another dipping will finish it. I make the saw-kerf 3/16 instead of ¼ inch.



Form for Fastening Foundation in the Sections.

For wiring, instead of pierced end-bars with wires running through (they draw into the wood and sag), use ¾-inch fine wire nails run through them from the outside and turned up into a hook on the inside, using a small pair of pliers. The wire can be strung on the hook-nails then.

And why did the Doctor not recommend a spur wire imbedder or the lamp scheme? I fancy an inexpert hand would meet with disaster—destruction of one frame of foundation, to say nothing of the vexation, will pay for the imbedder.

I fix foundation in the sections with melted wax, fastening the top and sides so there can be no swing, always using bottom starters ½ inch wide, leaving ¼-inch space between. I use a "form" for the work as per illustrations herewith, with a handle in the back similar to a mason's hawk, so it can be readily turned, holding the tool at an angle so the wax will run readily along the foundation and wood.

This "form" holds eight sections. Blocks should be 1/16 inch less in thickness than the half width of a section.

perfectly square, and drop easily into the section, being careful to nail them on the base (of ⅞ lumber) with a space of at least 5/16 inch between each two blocks. With a little practice an amateur can put in foundation very rapidly, and make a good job. I have no doubt many of these appliances are in use, but there are many small bee-keepers who know nothing about them.

I use the same kind of appliance for wiring frames and putting in foundation, with one block fitting in the frame, the top-bar resting on the base with a strip at the opposite edge on which the bottom-bar rests. This insures the finisht brood-frame perfectly true and square. I cannot understand why the supply dealers do not make and offer these appliances for sale.

I am very fond of honey and eat it with each meal, and agree with S. La Mont, that the foundation is objectionable; the combs drawn at the end of the season show the fishbone more than that drawn earlier. On Feb. 21 my bees were out in force, reminding me of swarming time. I found some half a mile from home when I went to Sunday school, at 2 p.m.

I am sorry amalgamation did not succeed, as I was waiting to send a dollar for membership to the United States Bee-Keepers' Union. Well, try, try again.

Passaic Co., N. J.

⁂

A New Bee-Keepers' Union Unwise.

BY PROF. A. J. COOK.

I believe fully in the right of majorities to rule. It would seem that the majority of the bee-keepers represented in the National Bee-Keepers' Union desire that that organization do not undertake to perform other work than that which it has already prosecuted so admirably in the past. I am not so sure this is true. I am inclined to the opinion, that many who voted at the last election were not informed properly or fully as to just what was intended. Is it not true that the work of defending bee-keepers against unjust accusation and attack, against ignorance, prejudice and enmity, is nearly done? The success of each defense in the past, together with the valuable precedents now on record in the courts, make it very probable, as it seems to me, that very few such prosecutions will be undertaken in the future, and so very few calls will be made upon the old Union to engage further in the work which it first set itself to do.

If I am correct in the above judgment, then, plainly, the old Union should undertake new work, or dissolve. Organizations, like the individuals that compose them, cannot afford to stop work. It were well if no able-bodied man, who refuses to work, even tho good—or shall we say evil—fortune has made it unnecessary for him to labor to secure a maintenance, could get food to eat. The world has no worthy use for the hopelessly indolent man. I see no reason why a society should not come under the same rule. If the individual has capital, either in money, muscle, brain or soul, then all the more should he be in the very midst of the world's work. Just so any society or association that has power or prestige because of good work previously done, or capital acquired, is under double obligation to put its shoulder to the wheel of the world's industry.

That the old Union has justly won confidence is true beyond question. It has not only a well-earned reputation, but it also has capital, which has come because it has gained confidence by that best of ways—good, efficient service. The fact that it has done so much less work in the last year or two proves conclusively that there is no great call for the kind of work which it has done in the past. The recent vote shows that it still has the confidence of its members. It surely cannot retain confidence unless it continues to do good work. Again, the society has funds which are lying idle. It seems to me there is no excuse to withhold from doing any kind of service which will tell for the good of the bee-keeping fraternity.

From the above facts I feel very certain that if the exact state of the case were known to all the members of the National Bee-Keepers' Union, that there would be an almost unanimous vote to take up the matters which now so sorely press for attention.

The matter of honey-adulteration is really one of the most important that can now receive attention. There is no question but what a great deal of adulterated honey is now sold in all our great markets. This is to be condemned from many points of view. In the first place, it is a lie, and no lie is ever defensible. To sell a thing for what it is not, is and must ever be demoralizing. Such practice should be denounced on every hand, and no pains should be spared to stamp it out of existence. Again, this practice interferes with the sale of the genuine, and so is a wrong and injustice done to every producer of honey. This is not all; I am entirely certain that all honey adulterated with glucose will soon become distasteful, and thus the purchase of adulterated honey must ever tend to injure the market for the pure article. People think they do not like honey, whereas if they had only eaten genuine honey, they still would have craved it, and would have continued to buy. It seems to me, then, true beyond question, that no better service can be given to bee-keepers than to unite all our forces to drive this nefarious fraud out of existence.

During the present winter, owing largely to the enterprise and hard work of one of California's most able and enterprising bee-keepers—Mr. Clayton—our State now has a splendid law regarding adulteration of honey. Mr. Clayton not only studied the subject thoroughly himself, but he called to his assistance all available aids that the Bill might be as near perfection as was possible. After perfecting the Bill, Mr. Clayton, sustained by the State Association, and by individual influence, prest the matter before the Legislature with such emphasis, that I believe the Bill was the first one to pass this session; at least it was one of the first. The same energy will bring the same result in every other State of our country; and what will still be better, unanimous effort throughout the country would secure national legislation in this matter.

Thus we have now only to see that this law is enforced. We all know how difficult it is even when we have good legislation, to execute laws where there is any considerable money influence against such enforcement. Thus we need more than law, in order to stop the work of honey-adulteration. We must have just such an effort as the old Union has made in its past struggles. I have not a question but what if the National Bee-Keepers' Union would take up this matter with the same wisdom and energy that carried on its past contests, we should soon have as great victory in this line as we secured in our past action. I cannot see how any one could oppose such a course, if the matter was fully understood. I believe if we will all unite and push this matter, we can soon secure action that will make itself felt throughout the whole country.

As one of the Vice-Presidents of the old Union, I most earnestly urge that we commence action at once, in such States as have efficient laws regarding honey-adulteration. I know of no better place to begin work than right here in California. No individual should be askt to do this work at his own expense. The old Union can afford to do it, and could commence operations with far greater hope of success than could any individual. I hope that all the other officers of the Union will at once speak their mind on this subject, that we may begin work at once, and press the matter to a speedy issue. I thus urge every one of the officers to express opinion through the American Bee Journal. In this way we can get sentiment without being obliged to enter into correspondence for a vote.

It seems to me unwise to form a New Union. I have read with much interest Mr. McIntyre's article in last Gleanings. I have great confidence in Mr. McIntyre, know him to be one of our best and most intelligent bee-keepers, and have the most thorough respect for his judgment; yet I do not agree with him in this matter. It seems to me that in this work, as in all matters of this kind, it is very important for all to hang together. I have never seen any good results come from divided counsel.

It has been made evident above, as it seems to me, that the old Union is fully prepared and can now well take up this new work. To double the organization, create a new set of officers, and build up all the new machinery necessary to organize the new association, seems to me utterly unwise and indefensible. I believe Mr. McIntyre will think the same, as he gives the matter further consideration. We have an organization all ready to go to work. It has funds lying idle. It has the prestige of past success. It certainly is just the association to grapple with this terrible enemy of adulteration. I sincerely hope we may have an expression of opinion at once, and that there may be no delay in taking hold of the new fight with all the energy possible to command.

Los Angeles, Calif.

[See page 248, for editorial comments on the above article.—EDITOR.]

⁂

Changing the New Union's Name.

BY EMERSON TAYLOR ABBOTT.

I have read the editorial on my article, on page 178, and I can agree with some of it, but not with all of it. As to the name suggested, I am not over particular about that. "League" would suit me very well, but I confess it does not strike my fancy quite as well as "Alliance." The words are given in the dictionary as synonymous, but for some reason I have come to look upon alliance as being a stronger word than league. If the ladies will excuse me, and not misunderstand me—for I believe in woman's rights—I will say that league strikes me as a feminine word, and alliance as masculine. "League" is strong on the moral side, and "Alliance" suggests more physical power. We talk of the "allied powers" when nations unite to defend their rights.

It seems to me that "leagued powers" would sound a little tame; but Epworth League for moral and spiritual work sounds all right. These societies seem to me to have given "league" a special and specific meaning not recognized by the dictionaries, and I would prefer not to belittle the word by using it in any other connection. However, this is only a whim of my own, and is not worth the wasting of very much time.

I do not feel this way about the necessity for a change of name on the part of the United States Bee-Keepers' Union. Of course, no society has a "patent" on the word "Union," but the use of it by the new society, if the old one is to continue in the field, is sure to create confusion, if it is not the cause of unnecessary hard feelings. Take as an illustration the references to the Bee-Keepers' Union which were found in the same number of the Bee Journal which contained the editorial, and which Union is meant? Do you not see that this question would constantly arise unless one, in speaking of the work of the Union, should modify the expression by saying "old," or "new," as the case might be? A name is arbitrary and is given to designate a personality, to point out an individual person or organism, as separate and distinct from all others. Then why designate two children in the family by the same name, when the dictionary is full of names? Most people prefer to name their children so that when John is called, not more than one will be expected to answer.

To change the figure, if I were hunting for land, and plenty could be had for the taking, I should avoid that which was claimed by others, even tho I knew their claim was not good, if I could find other land which would answer my purpose just as well. This is my position with regard to the name "Union," and in the interest of harmony and good feeling, and to avoid confusion, or the necessity for an explanation every time there was a reference made to the work of either of the societies, I suggested the change. I think yet that the point is well taken, and that there is no necessity for waiting until we meet at Buffalo to make the change, if all the members of the United States Bee-Keepers' Union will agree to the change. I, for one, will agree to any name which will overcome the difficulties suggested above.

Buchanan Co., Mo.

[All right, Mr. Abbott, "Alliance" will suit us very well. Or, it might be called, "United States Bee-Keepers' Association." That was the name we suggested in the sample constitution we got up and publisht just before the Lincoln convention.

Shall it be "League," "Alliance," or "Association?" Shall a vote be taken at once to decide it? Let as many members as favor a change of name, write to the Secretary (Dr. A. B. Mason, Sta. B., Toledo, Ohio), suggesting such vote.—Ed.]

⁂

The Williams Automatic Honey-Extractor.

BY VAN ALLEN & WILLIAMS.

Editor York:—With your permission we wish to say a few words about the "Williams Automatic Honey-Extractor."

It seems some one has written The A. I. Root Company that their four and six frame honey-extractors were an infringement on the Williams. The fact is, if the Root Company have the drawings and description sent them by Mr. Williams, shortly after his patent was issued, they know as much about the principle covered by the Williams' patent as any of their customers. Editor Root has written us asking for price-list and a statement in regard to claim of infringement. At present we do not care to make any positive statement in regard to the matter, but we wish to place the facts before the bee-keepers of this country, and let them judge whether the Cowan four and six frame extractors are an infringement on the Williams or not. We are willing to put up with their decision for the present, at least.

We would like every bee-keeper in this country to compare the illustrations of the reel of the four and six frame Cowan, with those of the Williams, and see how very near they are alike in construction. Each has the circles for the comb-baskets to rest against when in motion; each has the uprights to hold the circles in place; each has cross-arms to the bottom of the reel, with center shaft passing through the reel; by putting the reversing gear at the bottom of the reel in the Cowan, it was necessary, of course, to have an arm extending from the shaft to each comb-basket, which is an objectionable feature in a honey-extractor. The Williams has a single arm extending across the top of the reel, thus leaving one-half of the extractor free from any obstruction to the easy and rapid handling of combs, but while the reversing arrangement of the Williams is at the top of the reel, where is no possibility of it ever getting daubed with honey, that of the Cowan is at the bottom of the reel where it is very liable to get daubed with honey. But while one is at the top of the reel and the other at the bottom, the principle of reversing is the same, that is, that of reversing from the outside. The Stanley extractor reverst from the inside; and it was the principle of reversing from the outside, with a gear attacht to the comb-basket, on which Mr. Williams applied for and obtained his patent.

The facts in the case are these: Mr. Williams' patent was issued Nov. 15, 1892. Some time after that he wrote Mr. Root and sent the Patent Office drawings, and drawings of his own, with a description, and askt Mr. Root if he would put up one sample machine for him, and what he would charge for doing the work. Mr. Root declined to do the work, and wrote Mr. Williams a very discouraging letter—in fact, he wrote several such letters, and carried the discouraging feature in them to such an extent that it was commented upon by Mr. Williams and his friends at the time, as very peculiar, that Mr. Root should write him such letters, and try to discourage him about his extractor unless he (Mr. Root) had some object in so doing. Bear in mind this took place the forepart of January, 1893.

Previous to this time, Mr. Root had always maintained that the two-frame extractor was large enough for all practical purposes, and that those having out-apiaries should have a machine in each yard. But during the winter of 1893, a sudden change took place in Mr. Root's mind in regard to extractors, for towards spring he came out with his four and six frame Cowan, saying "they were just what extensive bee-keepers needed." Mr. Williams said there was a demand for just such an extractor as his, and wrote Mr. Root that there was. Altho the Roots made their boast in Gleanings that they were the leading manufacturers of bee-keepers' supplies, and that they "set the pace and led in the race," somehow or other they had failed to find out that there was a demand for a larger and better honey-extractor than had ever been put on the market, till after Mr. Williams sent them the drawings and description of his invention!

It was during March, 1893—some two months or more after Mr. Williams sent him the drawings and description of his extractor—that Mr. Root got out his first four and six frame Cowans, and sent out cuts of them to his customers. Mr. Williams sent some of those cuts to his patent attorney (Mr. Hough) at Washington, D. C., asking him if the Cowan extractors, as shown in the cuts, were not an infringement on his patent, as they had the gear attacht to the comb-baskets with which to reverse, which was the *essential part of his invention*. The attorney had cuts of both machines, and the model of the Williams, and in his reply he said he had made a careful examination, and they were undoubtedly an infringement, for his (Williams') patent covered the principle of reversing the baskets with a gear, and it made no difference whether it was applied at the bottom or top of the reel, the principle of reversing was the same, and was covered by his patent.

Crawford Co., Wis.

[We sent an advance proof of the above article to The A. I. Root Co., so that their reply, if they desired to make any, might appear in connection with it. Here is what they have to say:—Editor.]

THE COWAN FOUR-FRAME EXTRACTOR NOT AN INFRINGEMENT.

As the Editor has kindly sent us a proof of the article by Van Allen & Williams, we hasten to reply so that both may appear in the same number.

Two or three months ago one of our customers wrote us that Van Allen & Williams claimed that our four-frame machine was an infringement upon their patent, and cautioned him against purchasing from us. We were promptly notified by the parties, and we immediately began an investigation, because this was the first intimation that we had had of the matter. We secured a copy of the patent; and after reading the claims through very carefully we were surprised that any one should say that our Cowan was an infringement. There is only one claim, and that a combination claim, to the Williams patent, and it reads as follows:

> "In a centrifugal honey-extractor the combination, with the comb-holder frame comprising two or more bars at its lower end, a ring uniting the same upright bars, and a ring uniting them at their upper ends, of comb-holders pivoted to said frame at points midway between the upright bars, a gear-segment carried by the pivot of each holder at its upper end, a ring having a rack for each segment, and a shaft carrying said ring, and journaled in said frame at its lower end, substantially as shown and described, and for the purpose specified."

It will be seen by those who are familiar with the principles of both machines that our extractor cannot by any manner of means be considered as an infringement. In the first place, the Patent Office, knowing that the sprocket-wheel-and-chain device for reversing four-frame extractors was very old, limited Mr. Williams to a very narrow combination claim. It is a well-known fact in patent law, in a combination claim, that every element is supposed to be necessary for its entirety. If, for example, Mr. A should use in a machine five of the six *elements* of a claim of any patented article, and should omit the sixth, he would not be infringing. This fact has been decided over and over again, until there can be no question about it. But where there are several *claims* to a patent, and one of the claims is infringed upon, then there is cause for action. As I pointed out, the Van Allen & Williams patent has *only one claim*, three elements of which we have not used, do not use, and never expect to use. The Williams extractor is advertised as an *automatic* reversing machine, the reversing being effected by the reversal of the crank motion. Our four-frame Cowans are not automatic, and never have been, the baskets being reverst with one hand while the other turns the crank. We believe that reversing by our plan is much more rapidly effected, because the machine does not have to be even stopt.

Moreover, it will be noticed that the reversing mechanism in the above claim is limited to the top, notwithstanding that Van Allen & Williams state that their patent covers either the top or bottom position. Then, again, the claim limits them to a gear and rack, while we use a sprocket-wheel and chain. We admit that there are points of similarity, just as we admit there are points of similarity between a buggy and a lumber wagon; but between our machine and the Van Allen & Williams there are vital and practical differences. It was Aspinwall & Treadwell who, in 1887, or thereabout, advertised and sold reversible extractors, making use of a sprocket-wheel and chain. Mr. H. Holden, of Port Dover, Ont., used this kind of extractor even before that. The sprocket-wheel-and-chain feature, as the Patent Office records show, is an old feature; and for Van Allen & Williams, or their attorney, to claim that our Cowan is an infringement is a little amusing in view of the printed matter showing that these ideas are very old. A similar arrangement was sent out by a Mr. Squire, in 1884 or 1885, of Santa Barbara, Cal. Reference to this machine is made on page 841 of Gleanings in Bee-Culture for 1889. We have other citations more important yet, but withhold them for the present.

With all due respect to the opinion of Attorney Hough, it will be seen that he saw only a *cut* of our extractors. He ought to know, as well as Van Allen & Williams, that a cut will give a very imperfect idea of the actual principles and workings of a machine. From the cut it might appear that our extractor was automatic in its reversing; but, as I have already pointed out, it is not automatic, and we defy any one to find any of our machines on the market that are automatic.

Another point should be noted is this: That attorneys do not usually discourage litigation. It is not their business to do so; and one will have to make an allowance for an opinion that is not altogether *ex parte*.

Van Allen & Williams state that Mr. Williams sent us a copy of the patent after it had been issued. Such a copy may have been sent, but we do not remember it, nor writing the discouraging letter in regard to building him a machine. The letter, if sent, probably came from our Mr. A. I. Root, who, at that time, was strongly opposed to our building four and six frame machines for the market, as he then believed there was no advantage in them; but "the boys"—Mr. Calvert and myself—did not entertain the same opinion, and we constructed a four-frame Cowan in 1891, but we did not advertise the machine until some time later. Mr. Calvert and myself were unaware that Mr. Williams sent a copy of the patent, and so, of course, there was no purpose on our part to copy or steal from another, as implied in the article above.

It will be seen from the foregoing, by any one knowing anything about patents at all, especially in view of the references cited, that Van Allen & Williams have no more right to claim the principles of our four-frame Cowan extractor than a six-year-old boy. It is enough to say that, while it is possible for them to begin suit, they have no chance whatever of securing judgment in their favor. Our patrons may rest assured that we shall protect them in the use of the Cowan extractor.

THE A. I. ROOT CO.
By E. R. Root.

Do We Want Apis Dorsata At All?

BY H. CHRISSMAN.

MR. EDITOR.—On page 188, Frank Coverdale makes a plea for the introduction of Apis dorsata through the Government. Speaking of Frank Benton's misdoing, he says: "This being true would be sufficient to denounce him, and to appoint another more suitable to bee-men." Does not Mr. C. know that bee-men have not a word to say as to the appointment, and that their wishes are not consulted in the matter? If Mr. Benton were removed some one equally objectionable might be in his place.

To come, however, to the real gist of the matter, do we want Apis dorsata here at all? As yet we do not know that they can be domesticated, and we do not know that a single pound of honey could ever be got from them, only as it might be had by bee-hunters in the wild state. Now let me picture what I think Mr. C. will admit lies entirely within the range of possibility:

The big bee is introduced into this country and flourishes—at least in the Southern states; makes its home in trees as it does in India, and increases enormously, but defies domestication. It gathers honey not only from red clover but also from white, and from all the flowers now visited by Apis mellifica. The bee-keeper is just so much out of pocket by its introduction, for the harvest is made just so much less. Cannot Mr. C. see that they would be as great a nuisance as the English sparrow? Even suppose they workt on nothing but red clover, monopolizing that. The day may come when our common bees will be bred so large that they can work freely on red clover, and if red clover is already pre-empted by dorsata, what gain will the red-clover bees bring?

Do not say we cannot have Apis mellifica larger than they are in general now. There are common hive-bees in this country now, whose workers are so large that worker-cells are very nearly the size of common drone-cells, with drones large in proportion. If you have the true interests of bee-keepers at heart, don't bring dorsata here till you know you can control it.

Erie Co., N. Y.

When Shall Second Supers be Given to Bees?

BY DR. C. C. MILLER.

I don't wonder Frank Cole doesn't agree with my practice if he thinks, as he seems to on page 181, that before giving a second super I wait till the first is ¾ or ⅞ full. But that's very far from my practice, Mr. Cole. I'll tell you what it is, or rather I'll try to tell you as nearly as I can, for I don't by any means always do alike. Even if I preferred to do the same thing each time, it would hardly be practicable with more than one apiary, for being absent a few days will make quite a difference in the progress made in a super. But the strength of a colony, the amount of the honey-flow, and the prospect of its continuance, have something to do in the matter.

As a rule, perhaps I might say that the second super is added when the first is about ⅓ filled. But the rule is subject to many exceptions. Here's a colony that's very strong. It seems crowded with bees—super and hive both—honey is coming with a rush, with every prospect that it will continue so, and altho the super isn't a quarter filled, it may get a second one, for if it doesn't it may be crowded before it is reacht again. Here's another colony that has made poor work, and the season is poor. Its super is more than half full, but at the rate it has been doing, and at the rate honey is coming in, it can get along even if the super is more than ¾ full.

Now look again at page 42, and you'll see that I said nothing there to conflict with such practice. The first sentence in that answer to P. O. is incorrect—"would prefer closed-tops, so that the bees could get up through.," I must have relied on the liberality of the compositor to furnish a "not" for that sentence, and I have my opinion of any compositor so stingy as not to furnish a little word like that, when I furnish all the big words. At any rate, it should read, "so that the bees could *not* get up through." I was calling attention to the loss it would be to have closed-top sections so one would have to wait for the first super to be finisht so as to take it off and put on the second. I might have said: "When the first super is half filled it would be a loss of time to wait for it to be filled," but in some cases there would be no loss in waiting at least a little while. So to make sure I didn't overstate the thing, I said what I did, and surely you will agree that I said the truth in saying it would be a waste of time to wait after a super is ⅞ filled. I am, however, obliged to you for calling attention to it, for others might also misunderstand it.

McHenry Co., Ill.

CONVENTION PROCEEDINGS

Report of the Illinois Bee-Keepers' Convention

BY JAS. A. STONE, SEC.

The Illinois State Bee-Keepers' Association met in Springfield Feb. 24, 1897, for a two days' session. The meeting was called to order by the President, Dr. C. C. Miller, and prayer was offered by George W. York.

The Secretary's report was read and adopted as follows:

THE SECRETARY'S REPORT.

At our last annual meeting arrangements were made with the American Bee Journal by which every one becoming a member of the Illinois State Bee-Keepers' Association, on payment of $1.00, was entitled to a year's subscription to the American Bee Journal and a copy of the Second Annual Report. By this plan our membership was increast a little more than 50 per cent. above 1895, and just 50 per cent. above 1894. The expense in doing this has been beyond the income, but by the present arrangement with the American Bee Journal we are in hopes that the coming year will not overdraw on the treasury; and as we said last year, it is more our need to increase our membership than to fill our treasury.

Should the Association see proper to send out return postals for reports, as done last year, we have perhaps enough on hand to last a year. Also, we had on hand about 1,000 circulars such as were sent out to encourage membership.

We believe it is all-important that the present arrangement with the American Bee Journal be kept up till something better can be suggested. And with the present condition of the State treasury, we see no use of seeking for help in that direction.

We are of the opinion that the greatest good that this meeting can do is to take steps to get a law enacted to prevent the adulteration of honey, as we suggested in our notice of this meeting, in the American Bee Journal.

JAS. A. STONE, *Sec.*

The Treasurer's report was given by the Secretary, and adopted.

Next came a paper by George W. York, of Chicago, entitled,

WHAT COMBINED EFFORT IS NEEDED BY BEE-KEEPERS?

Now that question is a poser—quite too large a subject for so small a man to handle comfortably or satisfactorily. Also, as to what particular line is meant by the query, I can only guess, as I presume that is left for me to suggest.

In the first place, I am sure that the first direction in which a great combined effort of bee-keepers is needed is along the line of the prevention of honey-adulteration. As I have several times said, in print and elsewhere, I feel that until the question of adulteration of honey is settled, there can come no satisfactory profit or returns from the apiary. The size of the crop will cut no figure in the price of honey so long as the dishonest and unscrupulous are permitted to continue to multiply whatever the crop by ten, by the addition of glucose or other adulterants.

So I feel that, above all, there cannot be too great a combined effort among bee-keepers, if they desire that the adulteration of pure honey shall be stopt by the enactment and enforcement of legal measures. Here is a wide field, take it either by State legislatures, or through the National Congress. But there is no question that *something* must be done, and right speedily, or profitable honey-production is forever doomed.

Again, it may be that much may be gained by bee-keepers by a combined effort in marketing the honey crop, after we have once secured the necessary anti-adulteration laws. But I am not so sanguine of success along the line of a united effort in marketing as I once was. There are some questions whose end can be seen from the beginning. But this one of marketing is not of that kind. The more I think of it and learn about it, the more I am led to believe that it's too prodigious for me.

No doubt there is a better way to profitably market honey than is generally practiced, but what is it? Is it by the "Exchange" method? Perhaps so—and perhaps not. While the city commission plan answered well before large honey crops were produced, I think it will now be admitted that very soon some other way will have to be adopted.

For some time the city commission houses have been overstockt with honey—it has been a drug on the market. And why? It cannot be that people have stopt eating honey, especially when the price is so low. But *is* the price *so low*—the *retail* price—the price which the consumer pays? No. And therein I believe lies one important reason. The trouble is, the retailers in many cases are almost robbers. For instance, many Chicago retail grocers purchase the best ¾-pound sections of honey at 12 cents per *pound*, or less, at the commission houses, and then retail them at 16 to *18 cents each!* That's a profit of about 100 per cent! They will buy a ¾-pound glass jar of extracted honey for 12 cents and retail it at 18 cents! A profit of 50 per cent.! Is it any wonder that at these prices but little honey is used by the city public? The wonder is that *any* is sold.

I tell you, there must be some other method devised whereby the producer will get a larger share of the retail price, and also that the consumer may be enabled to get honey at a more reasonable figure. And perhaps a combined effort will be necessary before these two important objects are secured.

I might enumerate other lines in which combined efforts are needed—such as securing foul brood laws, protection from fraudulent commission dealers, etc., but perhaps I have suggested enough to start a discussion that may result in something of value even if what I have said is worthless.

GEORGE W. YORK.

In the discussion that followed Mr. York's paper, all were of the opinion that grocers generally demanded a larger per cent. in handling honey than in the other products of the farm or country.

The question was brought up in regard to the "pound" section, and about all the members were in favor of a full-pound section, tho Dr. Miller said, as it was impossible to get all the sections a full pound, that it was not worth while to stand closely by it.

Mr. Smith—I sell my honey to the grocers by the section, and those that are light I cut out and sell to my neighbors by the pound, and I can sell all the honey I can get.

Mr. Robbins—I think we can come near enough to a pound to average 15 ounces.

The President reminded the convention that they were a little off the point of discussion, and referred them to the recommendation in the paper read by Mr. York—that action be taken as to adulteration—whereupon a motion made by Mr. Robbins prevailed, that a committee of three be appointed by the chair, as a Legislative Committee, to secure the enactment of a law to prevent the adulteration of honey in the State of Illinois. The President named as that committee those who lived near the capital—Jas. A. Stone, J. Q. Smith, and Geo. F. Robbins.

Mr. York advocated combined effort among bee-keepers, in the way of selling each other's honey.

A motion prevailed to adjourn to meet at 1:30 p.m.

At 1:30 p.m. the convention was called to order by Pres. Miller, and with unanimous consent it was thought wise for our meeting to join in with the State Farmers' Institute for the afternoon and evening; especially as our President was on their program in the evening.

SECOND DAY.

At 8:30 a.m. the meeting was called to order with Dr. Miller in the chair, the Secretary opening with prayer.

The Secretary then outlined the work needed for the year, recommending that we offer for this year again the American Bee Journal for one year free to all who become members of our Association and pay their fee of $1.00 to the Secretary (to which Editor York kindly agreed); and also a copy of the Second Annual Report, which contains illustrations of the honey exhibits at the World's Fair, and a full report of the North American Convention of that year.

The Secretary also recommended, for this year again, the sending out of return postal cards to members of the Association for their reports of honey, as there were probably enough cards on hand for the year.

He thought while it was very nice to have full reports of our meetings in the Bee Journal, still this was a drawback to our meetings being attended, as many would think they could stay at home and still have the report of the proceedings. This is all well enough if they are willing to have no part in shaping that which may result in the greatest good.

A motion prevailed that we proceed to the election of officers for the ensuing year, which resulted as follows:

President—Dr. C. C. Miller; Vice-Presidents—1st, J. Q. Smith; 2nd, S. N. Black; 3rd, Chas. Becker; 4th, Geo. F. Robbins; and 5th, Jas. A. Green. Secretary—Jas. A. Stone, of Bradfordton; Treasurer—Chas. Becker.

Dr. Miller's paper was the next in order, and he accused the Secretary of getting him into that scrape, and the only way the Secretary could get out safely was to first give the law on noxious weeds in Illinois, which he did as follows:

NOXIOUS WEEDS TO BE DESTROYED IN ILLINOIS.

"The Commissioners of Highways in their respective towns, and the County Commissioners in counties not under township organization, shall annually at the proper season to prevent the spread of the same, destroy or cause to be destroyed all cockle-burrs, Canada thistles, Russian thistles, and all other kinds of thistles, or other noxious weeds. growing brush or plants growing on or upon their respective highways within their jurisdiction."

Dr. Miller then gave the following on

SHOULD SWEET CLOVER BE CLAST AS A NOXIOUS WEED?

The State of Illinois has laws against Canada thistles along with certain other plants particularly named, and "other noxious weeds." As sweet clover is not specially named, the question arises whether it may fall under the category of "other noxious weeds." What is a noxious weed? Failing of any statutory definition, we must fall back on the dictionary. Referring to the Standard dictionary, a *weed* is defined: "Any unsightly or troublesome herbaceous plant that is at the same time useless or comparatively so, as a burdock or a dandelion; especially, such a plant that is positively noxious or injurious to crops; also, any herbaceous plant out of place, as a poppy in a wheat-field, or a stalk of wheat in a flower-garden." *Noxious* is defined; "Causing, or tending to cause injury, especially to health or morals; hurtful; pernicious."

The term "noxious weed" is evidently somewhat elastic, any plant under certain circumstances being a weed, and capable of being more or less noxious. One of the most useful plants—white clover—may be a weed in a strawberry-bed, and decidedly noxious. But that fact would hardly justify a law forbidding a farmer to allow white clover on his farm. Any assemblage of intelligent farmers would pronounce such a law absurd, while a law forbidding him to suffer Canada thistles on his farm under pain of severe penalty would be pronounced a righteous thing. If we can get at the reason for coming down so severely on the thistle, while the white clover goes scot free, perhaps we may be in position to decide as to the proper status of sweet clover.

The indictment upon which the death sentence of Canada thistle is based, may come under three counts:

1. Its uselessness. Domestic stock find white clover a useful food, but not Canada thistle.

2. The difficulty of eradication where once establisht. The effort sufficient for the utter extinction of white clover, will find Canada thistle flourishing luxuriantly the following season.

3. Undoubtedly the most serious count against Canada thistle is the rapidity and certainty with which it spreads to adjoining and even somewhat distant territory by means of seed. A very small patch on one's land can speedily seed acres or miles around him.

Tried by these three tests, how does sweet clover stand? First as to uselessness. In some places, at least, it is considered a valuable forage crop, and its use is on the increase as green or dry forage. Its long and deep roots, after rotting, leave the soil in good condition for drainage, and for turning under as green manure it has undisputed value.

2. Is sweet clover difficult of eradication? While the thistle continues in perennial vigor year after year, the sweet clover is a biennial, every plant dying root and branch at the close of its second season. To exterminate it utterly it is not necessary to uproot a single plant. Simply cut down the stalks after they have made as full a growth as possible, but before any chance for maturity of seed, and there is no possible chance of its continuance. As the plant is biennial, this will be necessary for two successive years, where it has been growing uninterruptedly. It is just as difficult to kill out as red clover, and no more so.

3. Does sweet clover spread rapidly by means of seed? and does it thus readily get a foothold upon cultivated ground at some distance? No burrs or wings are attacht to the seed as with some other plants, and the ripened seed falls directly to the ground, carried, if carried at all, after its fall to the ground. Its chief means of spreading is by means of sticking to the wheels of vehicles when the ground is in a muddy condition, and in this way it may slowly be spread to some distance. And that's perhaps the only way in which it can spread more than five feet in a season. Not far from my home I can find where sweet clover has been growing for 40 years on the roadside without crossing the fence to encroach on cultivated land. Let a patch of sweet clover be growing on one side of the road and it may not cross to the other side for 10 years, altho it will gradually travel farther along the one side. Scarcely a weed that grows will do less at spreading upon cultivated land.

A charge that may with some propriety be brought against sweet clover is, that it grows so tall and strong as to obstruct travel on the highway. Left to itself throughout the entire season it is decidedly bad in this respect, but an intelligent roadmaster will have no difficulty. Cut it down just before it commences to bloom, and it will not again make so strong a stalk as to be a serious obstruction. Where cattle are allowed free range on the road year after year, they never allow sweet clover to get to any great height. I know a place where for many years sweet clover has been growing on the roadside. Throughout the summer, cows are driven along this road nearly a mile to and from pasture. Where the cows travel the sweet clover never attains a height of more than one of two feet. Immediately beyond, with no cattle to browse it down, it grows to a height of six or eight feet.

Will an intelligent jury decide that sweet clover is a noxious weed? C. C. MILLER.

Mr. Smith—If sweet clover is cut at the proper time, it can be killed as easily as any other plant that is biennial. There was some cut in my neighborhood that was in bloom, but not seeded, cut very low, and it killed it so successfully that not a particle of it came afterward.

Dr. Miller—If it is cut at the proper time, and in the manner for feed, the growth after is not bad, nor in the way in the highways.

(Concluded next week.)

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

The Alley Trap for Catching Queens.

Please tell me whether the Alley queen-trap is a success or not in catching queens in swarming-time? or do you know of any contrivance that is? A. E. A.

ANSWER.—Yes, if you put an Alley trap in front of a hive, you may count on finding the queen in it if the colony swarms.

Bee-Space Between Tiered-Up Supers.

In tiering up sections, must there be a bee-space between each tier? SUBSCRIBER.

ANSWER.—Probably there are very few nowadays who tier up supers (or storify supers, as the British perhaps more properly say) without having between each two supers a space of ¼ to ⅜ of an inch. Years ago ⅜ was the space used, but nowadays ¼ is considered better. Practically there's little difference in the two, between supers, altho there may be a distinct difference between top-bars and supers. At one time there was advanced the idea that bees would do better work if they had no space to cross, and "continuous passage-ways" were advocated. That is, sections were placed plump down on top of other sections. But bees don't seem to mind crossing a ¼-inch space, and there are two objections to having one section rest directly on another. One objection is, that you will find it almost impossible to put one super of sections on another without crushing bees, unless there is a space between the two supers of sections. Another objection is, that if one super rests directly upon another the two will be thoroughly glued together, making the bottoms of the upper sections and the tops of the lower sections much worse daubed with glue than if a space was between.

Keeping Extra Queens Over Winter—Introducing Queens.

1. What is the best way to carry extra queens through the winter, that are not needed the summer before?

2. Can a queen be introduced into a colony in an hour, or later in the day, after a swarm has been sent out? or will I have to cut out all the queen-cells before introducing her?

COLORADO.

ANSWERS.—1. Keep them in a nucleus. But it isn't easy to winter a nucleus, so it isn't an easy thing to carry extra queens through the winter. You may, however, have pretty fair success by giving them the advantage of the heat of a strong colony. Have a bee-tight partition in your hive, using lumber ⅜ thick or less. Let the colony occupy the larger apartment, and the nucleus the smaller. So far as I have tried it, the two colonies will nestle up against the division-board, making what would be a single cluster if the division-board should be quietly removed. I have tried it in a great many cases, but the two colonies or nuclei were generally of nearly equal strength. If one was very weak and the other very strong, the strong one might possibly cluster away from the partition, leaving the weak one to perish from cold. The safer plan would be to have the division-board in the middle, as mine always were, have the two nuclei about equal, and of such strength that the two united would make a good colony. Then in the spring you could take away the extra queen and unite, or take away one queen with enough to make a weak nucleus, uniting the rest.

2. Most likely she would be kindly received, but if the colony was sufficiently strong she might come out next day with a swarm. This might be avoided by brushing off all the bees that could be spared from the brood, uniting them with the swarm, and setting the old hive in a new place.

Cause of Apiaries Being Wiped Out in 1879.

On page 46 of Gleanings, for 1894, W. S. Fultz says: "[In] the winter of 1871 fully 75 per cent. of all the apiaries of Eastern Iowa and Western Illinois were wiped out of existence, and the others were so decimated that in nearly every case, not more than three or four hives were left, etc......The cause of the great mortality to bees was said to be poisoned honey that had been gathered by them during the previous summer." This bears closely on subjects discust on pages 248 and 249 of the August Review, and I am anxious to "run it down." The American Bee Journal was the only journal publisht then, I believe, and probably contains more detailed accounts, and perhaps theories of the matter, which it might be useful to compare with the recent outbreak around Denver. But I have not the American Bee Journal for those years, and probably very few have. Can I be helpt out here? I am afraid the trouble may repeat itself this year. DENVER.

ANSWER.—I've spent no little time looking carefully through the American Bee Journal, but not with most satisfactory results. On page 212 of the March number for 1872, Father Langstroth, who was then staying at Washington, where the editor, Samuel Wagner, lived, writes:

"Both Mr. Wagner and myself have this winter had numerous letters, informing us that the mortality among bees from dysentery has been unusually severe. Several persons have attributed it to the large quantites of new cider stored up by the bees. In many localities, large quantities of very thin honey were gathered too late to be thickened or sealed over by the bees. This thin honey in cold weather soon becomes thinner still, and then by fermentation sours, and is almost sure death to bees, especially if they are entirely confined to their hives." But no special reference is made to Iowa. On page 253 he says: "We learn from several prominent bee-keepers that if our suggestion in the last number about using the *Hruschka* [extractor] to empty *thin* honey, in the fall, could have been made last September, many colonies which have died of dysentery might have been saved."

On page 252, May number, Elisha Gallup, then at Orchard, Iowa, makes some remarks about wintering in general, but says nothing about any special mortality in Iowa. On page 254, he says: "We are wintering our large hives on the summer stands, and thus far (Feb. 15, 1872) we are highly pleased with the results."

On page 257 is an article that seems to bear more directly on the subject, written also by Mr. Gallup, who contributed oftener than any other writer to that volume of the Bee Journal. He commences: "In order to throw some light on this Bee-Disease," and then tells about the wintering of "10 colonies on the stands," in four different kinds of hives, and 42 colonies and 5 nuclei in the cellar. The substance of the report is that three colonies died outdoors because they were in hives so tall that "the cluster was in a wrong position, tall up and down," and the other three that wintered outdoors came through in spendid condition. In the cellar three of the nuclei, having all young bees, wintered well, and two having all old bees died. He continues:

"Bees left to themselves stopt breeding earlier last season than common on account of the drouth. Old queens stopt laying from two to three weeks earlier than young queens; consequently five colonies in the cellar with old queens had the dysentery when I set them out March 26, and large quantities of dead bees; probably two weeks longer of confinement would have used up the entire five colonies. I discovered that two colonies were queenless in September, and introduced young queens after it was too late for them to breed, hence they had all died with dysentery the first week in March. If the weather had been mild enough to have allowed them a purifying flight I could have saved them."

That's all I can find in any way bearing on the supposition that the winter of 1871—2 is meant. If the previous winter is meant, then I can find nothing at all relevant.

A Case of Weak Colony.

I have one colony of bees that seems to be weak. What is the matter with it? Does the queen want to meet a drone? She has been coming out and flying around in the warm part of the day ever since the last of February, and, if so, will she be too late? I saw young drones the last of February.

A. R. Y., Scott Co., Ark.

ANSWER.—There are many cases of weak colonies, and it may come from many causes. It is possible that your queen may turn out all right, for when a queen comes out at any other time than at swarming, you may count that she is not yet mated.

Preventing Increase of Colonies.

In preventing increase of colonies, have you ever practiced the plan of hiving the first swarm on frames with starters only, and then gradually replacing these frames with those belonging to the parent colony? If so, will you kindly give the result?

I have 46 colonies to open the season with. I will work for both comb and extracted honey, and desire to keep my number as near 50 as practicable. If you have a better plan than the above, will you be good enough to give that? (If it isn't patented). My bees are in 8-frame hives—Hoffman frames. My best swarm for 1896 filled seven supers of sections. They were hived June 10. They had also about 20 pounds for wintering. Clark Co., Wis.

ANSWER.—I have followed exactly that plan, and have no patent method. Indeed, I may as well tell you privately that I don't know enough to know just what is the best method to pursue to get good crops and keep down your numbers. Very likely your plan will not turn out exactly as you expect or desire, but by starting out in the direction you indicate you may eventually reach something desirable. One danger is that you may return the combs of brood too soon and make the colony swarm again. If you wait too long, brood in the new combs will be so far advanced that little will be gained by changing.

If I were to try the plan, I think I would give the swarm only half its number of frames to start with, then in ten days or two weeks fill up with combs from the old hive containing most brood. If the old hive, after furnishing combs enough to fill up, had left some combs containing much brood, I'd swap for combs of the swarm containing the least sealed brood. Of course, you will put the swarm on the old stand, and leave in the old hive barely enough bees to care for the brood, or else give the swarm *all* the bees and otherwise dispose of the brood.

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GEORGE W. YORK, - Editor.

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Editorial Comments.

Lost Numbers of the Bee Journal.—It seems lately that a good many copies of the Bee Journal get lost in the mails—at least quite a number of our subscribers call for missing copies. Now, we don't know why that should be, for we use the same care in mailing that we always have. But in case you do miss a copy, ask for it, and we will send it again. Don't wait three or four months and then write us, for by that time we may be unable to supply it. We just now have a call from Australia for about 30 back numbers running through the years 1890 to 1894 inclusive. Of course we can't supply them now, even tho the subscriber does offer us four cents per copy.

◆

The New Union—A Call for Volunteers.—We have received the following "letter of acceptance" and "inaugural address" from Hon. Eugene Secor, the newly-appointed General Manager of the United States Bee-Keepers' Union:

> EDITOR AMERICAN BEE JOURNAL—
> *Dear Sir*:—I notice in your issue of April 8, that I have been "promoted." Did I not have the fullest confidence in the honesty of the Executive Board, I should suspect they had gone "behind the returns" in declaring me elected. The "people" evidently thought I hadn't anything to do, and that I would be glad to *distinguish* myself by a campaign of *prohibition* against fraud.
>
> I have heard before of "office seeking the man," and this is positive proof that the theory upon which this government was founded has not gone into "innocuous desuetude."
>
> Since "the voice of the people is the voice of God," I submit with the best grace possible.
>
> But if it's war you want, please furnish the "munitions." There isn't any use for me to step into the "breach" unless at least 500 volunteers will "support" me.
>
> Come on, boys! Let's at 'em! But, "money talks." Send your $$ to Dr. Mason—*I* don't want the stuff.
>
> Yours truly, EUGENE SECOR.
> Forest City, Iowa, April 8, 1897.

Now that has the true ring of a leader. When a man says, "Come on," it means he's ready to go ahead, and only wants the rest of the "army" to follow and back him up.

Of course, the leader in the proposed fights to be undertaken by the New Union cannot do anything without "munitions," or "sinews of war." You see, he calls for 500 volunteers. That's not many. Why, there should be four times that many to respond at once from among the readers of the American Bee Journal alone. Then with all to "volunteer" from the readers of Gleanings, the Review, etc.—well, there oughtn't to be any trouble about "munitions."

Now, if it will be any more convenient for our readers to send their membership money to this office, do so, and we will be glad to see that it gets into the proper hands. Every bee-keeper is interested in the work to be done by the New Union. So send on your dollar and become a member at once. Let us not allow the new General Manager to suffer for the want of "munitions," but rather back him up in such a way that he will have no excuse to "let up" in the warfare against honey adulterators, commission frauds, and every other fraud that hinders or robs the honest producer of honey.

◆

The New Union is already receiving words of encouragement. Here is what that big Minnesota bee-keeper, Mr. C. Theilmann, wrote us April 9:

> FRIEND YORK:—I see by this week's American Bee Journal, that the New Union is now in full operation, and I hope that all good bee-keepers who are willing, and desire, to keep in check and root out the honey-commission swindlers and thieves and adulterators, will join, and send in their dollars. I will send mine in to-day. Success cannot fail to be the outcome with such men in office as the New Union now has.
>
> C. THEILMANN.

Mr. Theilmann has set a good example. Let 500 others do likewise before May 1. With such encouragement as that would be, General Manager Secor could "trot off" at a lively pace after the swarm of adulterators, honey-commission frauds, etc.

◆

Is a New Union Unwise?—On page 242, Prof. Cook has a most excellent article—one that would have been about ten times as valuable had he written it in time for it to have had its influence on the vote on amalgamation last January. It seems strange that the Professor should now be so strongly in favor of one of the very objects proposed by the New Constitution, and yet when some of us were trying to bring about amalgamation, so that honey-adulteration might be fought, he did not favor it. One reason why we wanted to unite the two societies was so that the fight against honey-adulteration might be undertaken and pusht hard; for we knew the General Manager of the old Union was opposed to having that organization take up this important work. He showed that very clearly in his last Report, when he was opposing the New Constitution, where he said:

> "The real question is this: Shall it now add to its work that of *prosecuting* honey-adulterators? Under the name of 'Amalgamation' the one *real point* sought to be gained is this feature, and that should be thoroughly understood.
>
> "If the Union is to be re-organized to do this work, it will subvert its original purpose and mainly change its character. It will have multitudinous lawsuits begun all over the country, and must have lots of money to employ attorneys to attack that dydra-headed monster—adulteration."

Of course, it would "subvert its original purpose and mainly change its character," if amalgamation had carried. But who cares about "its original purpose" of defense, now that the work in that line is practically all done? Suppose its "character" *had* been changed so that the money now lying idle in the treasury of the old Union could be used in prosecuting adulterators, would anybody shed tears over that?

We think the fact is, there is no need to talk about the old Union taking up adulteration, for the majority voted to use its present funds as in the past, and at the rate of expending it the last two years, it will hold out perhaps two more years. The New Union is planned to do not only the work originally proposed by the old Union, but infinitely more, as specified in its objects, which we publish two weeks ago.

Prof. Cook says, and very correctly, too: "I am inclined to the opinion that many who voted at the last election [in January] were not informed properly or fully as to the just what was intended." Of course they "were not informed properly or fully." How could they be, when only *one* side of the amalgamation matter was placed before them in the General Manager's Report, and that the wrong side? Nothing could have been more unfair than that. Had those favoring amalgamation been permitted to present their side of the case, as was clearly their right, if any side was to be presented, the result doubtless would have been very different.

Of course there is no need for two Unions, unless you want one to just put in its time in guarding a little pile of money, and the other to raise funds and do the fighting. As Prof. Cook says—and others have voiced the same sentiment—the old Union is no longer needed to defend the pursuit of bee-keeping in its right to existence. That was settled some 10 years ago.

Another thing, the New Union must be managed differently in some particulars than has been the old one. Just the other day a bee-keeper who for years was a member of the old Union, was in our office—and when askt why he dropt his membership, said:

> "When I belong to any organization I want to know what is done with the funds. I want to know how much is paid for this, and how much for that. I have a right to know. That is the reason I and others, who were members out where I live, dropt out. I also think the Treasurer should give a bond. I expect to join the New Union."

Just so. Every member certainly desires to see both sides of the New Union's account, itemized, and publisht in the Annual Report. All have a perfect right to this. It is no reflection upon the honesty or administration of the General Manager to ask for such information. He should be only too glad to give it. And why should any public financial officer feel delicate about giving a limited bond? This is only a good business principle.

As the majority of the members of the old Union practically said by their votes that they did not desire that organization to take up issues other than that of defense; and as its General Manager is opposed to undertaking the fight against honey-adulteration, to us it looks to be the very wisest of wise moves to build up a New Union that will just go in to win; not only get the victory over the adulterators, but help to wipe out honey-commission frauds, and when necessary also do what little may yet be needed to defend apiarists in their constitutional right to keep bees.

On with the New Union! Let the volunteers rally around its standard, and then go forth to victory for the right!

After Adulterators in California.—Prof. Wenzell, the chemist of the San Francisco Board of Health, is after the adulterators of all kinds of food. He is making chemical analyses of syrups, jellies, and canned sweets of all kinds. Of course honey comes in also. In a half-column report on Prof. Wenzell's work, sent to us by Mr. A. B. Zinn, taken from the San Francisco Examiner of March 14, we find these paragraphs:

> Sweeter than honey in the honey-comb is the honey that comes in glass bottles, so sweet and innocent and golden that only a health officer would dream of suspecting it. A canny little instrument, known as a polariscope, was turned on the different brands of "absolutely pure honey," with startling results. It is a scientific fact that a plane of polarized light, passing through pure honey, will be deflected to the left. If it deflects to the right, adulteration may be assumed.
>
> The San Diego honey showed a melancholy deflection of 13.3 degrees to the right; the Los Angeles and White Clover but little less. From this a large proportion of glucose was inferred, as well as sugar and syrup. Glucose is not food, and no respectable bee would tolerate it in her cell for ten seconds. To label such compounds "pure honey" is an insult to Dr. Watts and John the Baptist. Fancy the latter reduced to a diet of locusts and glucose!

Mr. Zinn says that Prof. Wenzell's work shows him to be the "right man in the right place." With California's present stringent law against the adulteration of honey, it ought to be easy to make it good and warm for those who attempt to adulterate the product of the bees. But when our Illinois legislature rises to its golden opportunity, and passes an anti-adulteration law, then look out for the unearthing of swarms of adulterators in Chicago. 'Tis said that "Every dog has his day," and we think the adulterator's "day" is coming on with great speed; and it will be a hot day for him, too. People are getting awfully tired of being swindled on both sides—inside and outside. What with frauds of all kinds to rob them of their hard-earned dollars, and the adulterators to tamper with what they eat, is it any wonder that honest people are wondering who is running this country, any way? It is time that those who believe in righteousness should arise in their might and everlastingly wallop the daylights out of the frauds of all kinds and conditions.

And the New Union is the agency that can help greatly in downing at least those who besmirch the fair character of the purest, best, and oldest sweet known to mankind.

The Weekly Budget.

Mr. L. L. Jackson, of Monterey Co., Calif., writing April 10, said: "The weather has been and is still quite warm for this season of the year, the thermometer registering as high as 90° in the shade."

Dr. C. C. Miller, in a letter we recieved April 14, says: "Winter isn't exactly lingering in the lap of spring, but spring doesn't seem to move very fast. I am busy hauling bees now to out-apiaries, and have three-fourths of them away."

Mr. G. M. Doolittle, in the Progressive Bee-Keeper, says that this "is the secret of successful honey-production in a nutshell: First, secure the laborers *just at the right time for the honey harvest*, then keep an eye on things, giving only *just enough room in which to store all the honey coming from that harvest*, and you are *boss* of the situation." There you have it. It's no longer a "secret." Now profit by it.

Now for New Subscribers for the rest of 1897: We would like to have each of our present readers send us at least *one new subscriber* for the Bee Journal before June 1, 1897. That surely will not be hard to do, when they will need to pay *only 60 cents* for the rest of this year. That is about 8 months, or only 7½ cents a month for the weekly American Bee Journal. Any one with only a colony or two of bees should jump at such an offer as that.

Now, we don't ask you to work for us for nothing, but will say that for each new 60-cent subscriber you send us, we will mail you your choice of *one* of the following list:

Wood Binder for the Bee Journal	20c.
50 copies of leaflet on "Why Eat Honey?"	20c.
50 " " on "How to Keep Honey"	20c.
50 " " on "Alsike Clover"	20c.
6 copies "Honey as Food and Medicine"	20c.
1 copy each "Preparation of Honey for the Market" (10c.) and Doolittle's "Hive I Use" (5c.)	15c.
1 copy each Dadants' "Handling Bees" (8c.) and "Bee-Pasturage a Necessity" (10c.)	18c.
Dr. Howard's book on "Foul Brood"	25c.
Kohnke's "Foul Brood" book	25c.
Cheshire's "Foul Brood" book (10c.) and Dadants' "Handling Bees" [8c.]	18c.
Dr. Foote's Hand-Book of Health	25c.
Rural Life Book	25c.
Our Poultry Doctor, by Fanny Feild	25c.
Poultry for Market and Profit, by Fanny Field	25c.
Capons and Caponizing	25c.
Turkeys for Market and Profit	25c.
Green's Four Books on Fruit-Growing	25c.
Ropp Commercial Calculator No. 1	25c.
Silo and Silage, by Prof. Cook	25c.
Bienen-Kultur [German]	40c.
Kendall's Horse-Book [English or German]	25c.
1 Pound White Clover Seed	25c.
1 " Sweet " "	25c.
1¼ " Alsike " "	25c.
1¼ " Alfalfa " "	25c.
1¼ " Crimson " "	25c.
Queen-Clipping Device	30c.

We make the above offers only to those who are now subscribers; in other words, no one sending in his own 60 cents as a new subscriber can also claim a choice of the above list.

General Items.

White Clover Thick.

White clover is thick in this section, and I am hopeful.
W. Spencer.
Macoupin Co., Ill., April 7.

* * *

Small Loss in Wintering.

I put part of my bees out the past three days, but it was hardly warm enough (52 degrees), and many scattered around and died. I have always found it risky to put them out if under 60 degrees above zero. Three colonies are dead (queenless) out of 130, but many will be short of stores and have to be fed.
C. Theilmann.
Wabasha Co., Minn., April 9.

* * *

Plaster Casts for Foundation.

Bees in south Florida are doing well this season. There have been several swarms near me. I do not let mine swarm—"watch 'em too close."

Can any of the readers of the "Old Reliable" tell me how to make plaster casts for molding foundation? and how to operate them? Are they patented? If so, by whom? Don't all speak at once.

I have to come to the front to thank our Editor for the good work he is doing the bee-keepers in our land, by fighting frauds. May he ever live to continue in the good work. He is ever ready to do his share.
J. M. Lassiter.
Hillsboro Co., Fla., April 7.

* * *

Good Honey Season Expected.

My bees are doing well, and I think we will have a good season for honey. I am a beginner with bees, this being my third season with bees. I live on the peninsula just below San Francisco. I do not ask any questions because I do not think it necessary as long as I take the Bee Journal; I also have the "A B C of Bee-Culture," Benton's and Newman's books. I think that any person with common intelligence these days can get along very well with the above. I get a good market for my honey and wax, because I have it in a neat, clena shape. As I attribute the most of my success to the Bee Journal I sincerely wish it and its editor success.
M. P. Smith.
San Mateo Co., Cal., April 7.

* * *

The Mississippi River Overflow.

When a boy living in Canada I often read of the great Mississippi river, of the overflows in the Mississippi bottoms, and longed to live on the banks of that great river. So about eight years ago I went to Louisiana, near New Orleans, to live, but over 30 miles from the river; but not being satisfied there, I came to this (Bolivar) county and located my apiary near the levee, in a low spot. For the first two years we had no high water, but this spring it came. We have a levee over 12 feet high, and it looks strong enough to hold any pressure. About 11 weeks ago the health bureau predicted an overflow, and we watcht the water as it crept from 6 to 12 inches per day up the levee, until it began to slosh over. Men went to work to raise it—over 10,000 men, they say, were at work between Memphis and Vicksburg, trying to save it. It was a novel sight to me, to see that great water, as long as it staid on the opposite side.

About a week ago a man came riding into our place saying the levee had broken about 6 miles above. We all knew that meant to get ready. This break was about 3 o'clock in the afternoon. Some said the water would not reach us for 24 hours, but I went to work putting my bees up and getting ready. I workt until about 2 o'clock in the morning, when the mighty water began to roll in my apiary. I had my bees up 4 feet high—all said they were safe. I then put my bed up in the loft, and went up as the water had cut me off from the railroad or levee. In the morning I knockt a board off and lookt out to see how the bees were doing, only to see part of the hives floating around. I went down in the water up to my waist (4 feet deep) and gathered them up the best I could, and tried to save them. How they are doing I cannot tell, but I think I shall lose heavily.

I then started to the apiary about 4 miles down the river, to see if the water had reacht them, but the water had beat me there—not a hive of bees or a stand was left—all gone. I did not go to my upper apiary, about 4 miles up near the break, but learned they had all floated away. But I am in hopes to save enough to start again.

While sitting here and looking over the water, it looks like a mighty ocean. Thousands of cattle have drowned, hundreds of mules and hogs are gone, and many lives are lost—so it is reported.

All had it reported that I was drowned, as I did not get up town the next morning. When a party came down to my apiary to see where I was, and call me, I tell you I answered soon, and crawled out of the gable-end of my wigwam, and got in that dugout.

Now I tell all bee-men that I have enough of the great Mississippi river. Railroad tracks are washt away on both sides of us; no mail for a week, and God only knows when we will get any. I send this letter out with some men that are going out to meet a passing steamer.
J. H. Siple.
Bolivar Co., Miss., April 1.

NO
DINNER
AND A SICK WIFE

This little picture will come home with telling force to many a tired and overworked farmer's wife, who has often felt that she could not longer stand the strain and who finally succumbed to disease. Poor woman! Do you not know that there is within your easy reach a remedy that will quickly restore you to health and happiness? A remedy that will positively cure

FEMALE COMPLAINTS
BRIGHTS DISEASE
URINARY TROUBLES
GENERAL DEBILITY
AND MALARIA

and all diseases caused by disordered Kidneys and Liver. It is a purely vegetable compound which has cured thousands and will cure you. It's name is

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Our Sections are the finest, and our Perforated Zinc is the only perfect and fully reliable now made. It costs more, but is worth more, and does not obstruct the passage of worker-bees. **The Nonpareil Bee-Hive** and all other **Apiarian Supplies.** Address for Catalog and prices, ARNOLD, JABERG & CO,
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FREE A booklet, handsomely illustrated, describing **Nebraska**, her farms and the opportunities there for young men and farm renters to become farm owners. Mailed without charge on application to P. S. Eustis, General Passenger Agent, C., B. & Q. R. R., Chicago, Ill. 14A8t

Mention the American Bee Journal.

WANTED—ATTENTION!

SEE HERE, Friend Bee-Keeper, the best goods are none too good, and the lowest prices are none too low for the present times, so down go the prices for 1897 on **Full Line of Bee-Keepers' Supplies.**

I defy competition in quality and workmanship. **Working Wax** into Foundation when sent to me, a specialty. Write, without fail, for Catalog. My prices are worth looking at. Wax wanted at 26c cash, or 29c in trade, delivered. August Weiss, Hortonville, Wis.
6A12t *Mention the American Bee Journal.*

* * *

Bees Wintered in Clamps.

I winter bees outside, packt in clamps with forest leaves, with a chaff cushion on top. I have from one to four colonies in each case. Out of the 40 colonies put up last fall, one is lost, and I consider that not bad for this latitude, and variable weather.

I like the Bee Journal so well that I would not like to lose even one number.
Wm. Miller.
Ontario, Canada, April 10.

* * *

Working on Sapolel.

My bees are now working on sapolel—a bulb that sends up a small plant that is in bloom as soon as the snow is off. The bloom is very fragrant, and bees fairly cover it. It furnishes both pollen and honey, and is in bloom before the willows are. It is a bulb the Indians dig to make bread of. I do not know its scientific name, but the Indians call it "sapolel." It grows in rocky bars, and on thin, gravelly land, and is a splendid early bee-plant.

It is needless for me to say the American Bee Journal is a welcome visitor; it is always received with great interest, so much so that I often read it until it is too late to go to church, thus failing to hear some good sermons.
S. W. Maxey.
Kittitas Co., Wash., April 5.

[Mr. Maxey, you should not let the Bee Journal interfere with your church duties. Remember the contents of this paper are not "too good to keep." They won't spoil if not devoured until several days after being received.—Editor.]

* * *

Bee-Keeping in Virginia.

The winter, in this locality, has been favorable to the safe wintering of bees, scarcely a week having past but what they were able to fly out, and all colonies that have sufficient stores pass the winters here without loss, on the summer stands, without any trouble as to packing, ventilation, etc. They commenced to gather pollen late in the month of February, and now, with cherries, peaches, pears, and plum trees in full bloom, and apple blossoms bursting forth, they are well bred up and strong in numbers. Last fall I took off some very fine honey, to my taste fully equal to any

Northern product. From what source it was gathered I do not know, as I summer at the North; but it is claimed here that the holly produces about the nicest.

Last spring I took with me to my New York State home, a few colonies about the middle of April, and I thought it paid well, and propose to repeat it this spring, for it did us good to notice how a frame or two of these young, vigorous bees and brood put new life into a weak, dwindling colony of old bees wintered at the North.

The weather has been rather cool for a few days past, and this morning a slight white frost was perceptible on the clover and grass, but somehow a frost here does not seem to kill plants and vegetation as it does at the North. I judge it is affected by the damper atmosphere, and denser air, for sound seems to travel farther, or is heard at a greater distance.

CHESTER BELDING.

Surry Co., Va., April 2.

◆

Bees Wintered in a Clamp.

To-day I took out half of my bees; they were buried since the first of November, 1896. I started at 8 o'clock, a.m., and it was 44 degrees above zero in the shade, and and when I got through it was 50 degrees, and out they flew. The wind blew a little from the east, and it was a fine day. Monday I expect to take out the balance, but these are 3 miles from my home, in the woods, and in the basswood also. I keep mine all in one clamp. All the bees I know of are alive. Soft maple is commencing to open. Clover looks well, and plenty of it.

D. D. DANIHER.

Dane Co., Wis., April 2.

◆

Australia—A "Worker-Queen."

Our honey season is now nearly over, and with me it has been about the best I have had for the past 16 years.

Have you ever known bees to swarm with a laying worker instead of a queen? Well, I had a very small swarm do just that silly trick a few days ago. They settled on a small bush, and to find the queen I shook the bees on to a bottom-board, but could find no trace of her. I noted, however, one worker that they paid particular attention to, and which they treated exactly as they would a queen, by circling around her and moving out of her way as she went about. I watcht her for some time, and from the respect and attention paid her, it was evident that the bees treated her as a queen. I then placed her in a *new* cage and set her down about a foot away from the cluster of bees, when they immediately started towards her and clustered around the cage. I then removed the queen and killed her, and on carefully opening her I found a single egg in her body. I am positive there was no other queen connected with this swarm, and that the bees recognized this worker as a queen.

H. L JONES.

Queensland, Australia, March 13.

◆

Painful Accident—New Union.

I expected to send my dollar to the New Union before this. I was waiting to see how the vote would come out on Feb. 1, when on Jan. 30 I slipt and fell on some steps in Minneapolis, while delivering butter, and dislocated my ankle, broke the small bone just above the ankle, and chipt the end of the large bone at the joint. So since then I have not had any stray dollars to send, but I will have, as I like the stand the New Union has taken on commission frauds, as I was taken in by Horrie & Co., in 1895, the time they had an advertisement in the American Bee Journal. I wrote to the editor at the time, and he replied that as far as he knew they were all right, so I shipt them my honey, and the next week their advertisement was out of the Bee Journal, and an editorial was in exposing them. I got 8 cents per pound, instead of 15 cents as they stated. But I have not lost faith in the American Bee Journal, nor its editor, as I am still a subscriber, and I expect to be a member of the New Union, if for no other reason than to help in its fight against frauds.

✻ TO BE HUNG! ✻

OUR SHINGLE is now hung out, notifying the public that we are again **ready to ship Queens.** Having greatly enlarged our facilities, can fill orders by **return mail.**

Golden Beauties, 3 Band Italians
Also Silver-Gray Carniolan.

Warranted Queen, 50c.; Tested, 75c. Make Money Orders payable at Caldwell, Tex. Send for Catalog of **Bee-Keepers' Supplies.**

Address, **C. B. BANKSTON,**
11Atf CHRIESMAN, Burleson Co., TEX.
Mention the American Bee Journal.

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We do not catalog the Quinby or Hill Smokers this year, but there may be some who prefer these styles. We still have a few, and offer them at these special prices to close out:

The Quinby—2-inch barrel, single-blast, 35c.; postpaid, 50c. 2½-inch, double blast, 60c.; postpaid, 75c.

The Hill—3-inch barrel, 40c.; postpaid, 60c.

VanDeusen Thin Flat-Bottom Fdn.

In 25 pound boxes, at only $10.50 per box, while it lasts. Address,

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Nuclei and Bees by the Pound.

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Dr. Gallup says they are the best he has in his yard
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Write for descriptive Circular Price-List and Samples. **N. B FORREST,**
15Atf AUBURN, N. Y.
Mention the American Bee Journal.

I am just able to walk about the house without a cane, but use one out-doors. I was laid up three weeks in Minneapolis before I could get home, but I had the Bee Journal sent to me from home. Hurrah for the American Bee Journal and the New Union! JOHN M. SEILER.

Carver Co., Minn.

[We are sorry to learn of your accident. The New Union is all ready to receive your membership fee now.—EDITOR.]

◆

Favorable for a Good Season.

My 25 colonies have come through the winter in good condition, with the exception of three, which have dropt out. They had the first flight March 19; on April 7 there were a few bees coming loaded with pollen. It was warm and sunny up to the 9th, when the weather changed, and it snowed all day, closing them in again.

Last year was a very good one for this location. I winter my bees on the summer stands, packt with hulls snug and warm. Everything looks favorable for a good season this year. Clover was looking nice last fall; I can't tell yet how it will come through the winter. Clover and basswood are our main supply. Basswood gave us considerable last year, but I don't expect much from it this year, so if clover fails it will be good-by honey with us. Success to the American Bee Journal.

H. M. HEATH.

Orange Co., Vt., April 12.

◆

Salt Water Cure for Foul Brood.

Will Mr. Golden please explain what the salt water cure for foul brood and bee-paralysis is? How are the bees treated? Does he consider it as good as the McEvoy treatment? A. C. M.

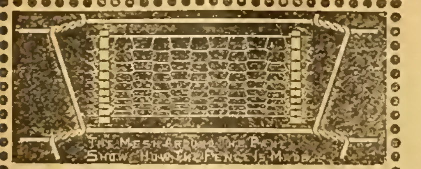
[Mr. Golden replies to the foregoing questions as follows:—EDITOR.]

In answering Mr. A. C. M.'s inquiries in regard to the salt water remedy, presuming he has in mind the electrolyzed sodium water mentioned in my article on page 180, permit me to say that so far as the electrolyzed salt water is concerned, it has never been tried either on paralysis or foul brood, to the best of my knowledge. He will notice on reading the article on page 180, that as there was no diseased bees, either foul brood or paralysis, existing in this section, I desired those having the disease amongst their bees to give the remedy a test and report. As I have explained in another article in regard to what electrolyzed salt water is, it will not be necessary to repeat it here. Also, I may say that plain salt water has never been used, so far as I know, for the cure of foul brood, but has been used very successfully in my treatment for the cure of bee-paralysis, as you will notice in the closing paragraph of the article on page 180. I also have given a statement as to how the treatment should be performed, in the article alluded to above, and which will appear soon in the American Bee Journal. J. A. GOLDEN.

◆

Out-Door Wintering.

I have taken care of bees for 31 years, in three different nations, and have had good results with them. Some claim the cellar is a good place for bees during the winter months. I don't think so. I am living in as cold a part of the country as a bee wants to live, and we get six months of winter here on the Berkshire hills in Massachusetts. I leave my bees in the open lot, and find in 12 years I have not lost one colony with the cold. I have the Albino bee, the pure Italian, and the native black bee—77 colonies in all. Give me the native black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How close can you plow to a fence? Or for that matter a rail fence or a barb wire fence? Did you ever stop to count up your annual loss from not being able to cultivate that strip of land? You can plow right up to the posts of the Keystone Fence. There is no waste land when it is used. We send inquirers a free book on fence building.
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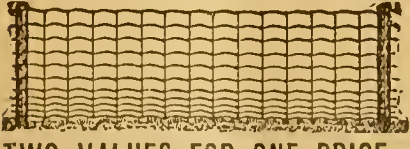

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bee ahead of any in this Northern climate. My last year's crop yielded me 4.500 pounds, and my bees have wintered well, and are just put on the summer stands. It is the first time they had a chance to fly. They went to their winter quarters on Dec. 9, and never had a flight until March 31, or had no privilege to fly. We had two or three feet of snow on the level here, and they came out just as strong as if it was May 1. Here are bees living in the open lot just as well as if housed up.

I have cleaned the bottom-boards of my colonies after the winter, and have not found a cup of dead bees on any board. Can you winter bees with any better results in a cellar?

Will moth-balls keep away moths without injury to the bees? THOMAS COLLINS.

Berkshire Co., Mass., April 6.

◆

Sheeting Wax for Foundation.

In reply to Dr. Miller's query in "Stray Straws" of Gleanings for April 1, 1896, as to why I kept so still about my process for making continuous sheets of wax for foundation, I will now say that my silence has been due to the fact that a patent had not been obtained on my apparatus for making the sheets until recently. It is now patented, and, so far as I can find, the continuous sheet produced by me with my machine differs widely in method of making and in product from any other. It is a rapid worker, producing the sheet continuously from the melted wax. There is no lapping or welding done in this process. The machine is simple in construction, easily operated, either by hand or steam power, and the price is within the reach of any supply dealer.

I have about 200 colonies of bees in the cellar at present. The loss of bees in this vicinity has been quite heavy, owing to a shortage of stores last season.

THOS. EVANS.

Allamakee Co., Iowa, April 1.

◆

Tennessee Bee-Keeping.

It is a very good thing that one man doesn't know it all. I find on page 204, an article entitled "Tennessee Bee-Keeping," telling how bees are kept along the Smoky mountains. I remember well an article I wrote to the Bee Journal about getting the bee-keepers of East Tennessee to organize into an association; and lo, when I wrote it, in a short time I found out that I was about two years behind the times. I found out that the East Tennessee Bee-Keepers' Association was organized, and was holding annual meetings. So you see I did not know it all, and I was about two years behind time.

Now the article referred to seems to insinuate that their is not a practical bee-keeper along the Smoky mountains. I have been keeping bees in those mountains about seven years, and I am not the first. Sam Wilson commenced keeping bees here in 1878, and they were not in log nor plank gums—they were in movable-frame hives, and he made a success of it, producing tons of honey, tho he is out of the business now.

I have some Italian bees, too, and they are in as good a hive as there is made, and in as good condition for a honey crop, if it comes. How many practical bee-men there are along the Smoky mountains I am not able to say.

I have at present about 80 colonies of bees. The time is now at hand when I have to begin my work for the summer. Fruit is blooming, in a few days huckleberry will be in bloom, and before it is over the main honey-flow will be on from the poplar, which is now getting green. Then we have the basswood next, which comes in June, and about the first of July we have the sourwood, which continues to bloom about three weeks.

I see occasionally some one says something about poisonous honey. While some think there is no such honey, there are others that know there is honey that is poisonous; and they know it comes from

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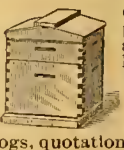

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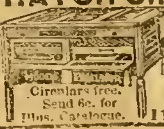

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10A13t Mention the Am. Bee Journal

mountain laurel. I want to state right here, for my last time unless called on, that we get poisonous honey here from the laurel, about one time in ten, and I never have known any one poisoned to death from it, nor never will, tho it makes a person very sick. The bees will not work on laurel if there is anything else to work on.

I have about 100 pounds of honey now that is mixt with poisonous honey. It is nearly two years old, and is granulated, but it has the bitter, scorcht taste.

Wm. Webb.

Cocke Co., Tenn., April 5.

Bees in Florida—The Ti-Ti.

This locality last summer suffered with a severe and protracted drouth, which proved to be the death-knell of many colonies of bees dying of starvation. By the law of "survival of the fittest," those that endured to the end were the best and strongest. After the fall rains flowers bloomed, and brood-rearing commenced, which continued during the winter, as on almost all fair days pollen could be gathered in the swamps, and probably some honey. Colonies were populous when fruit-trees bloomed, and by the middle of March swarms were issuing.

The ti-ti is a very interesting shrub or tree, growing in living water. All wet places are called "ti-ties." It is an Indian word, signifying tangle or thicket. There are three varieties of ti-ti, differing very little. The largest, which is quite a tree, grows where the water is the deepest, and they gradually grow smaller as there is less water. The bloom is in racemes of small, fragrant, white flowers, varying as to variety with a tinge of pink. The bloom is used in Easter decorations, for making stars, etc., and is very beautiful. There is much honey gathered from this source, which is white, of good body and flavor.

Some of the ti-ties are such a tangle as to be almost or quite impenetrable, providing a safe retreat for wild animals. Its dense, evergreen foliage protects plants from frost, which bloom during winter; tho I cannot find them the bees can, and bring heavy loads to their hives every fine, warm day. I never saw heavier loads of pollen than bees gather from this source.

During the past month the prevailing winds have been from the south and east, with much rain. The streams are out of their banks, and many bridges have been carried away. There have been severe storms on the Gulf of Mexico and St. Andrews Bay, causing much discomfort and distress to travelers and fishermen.

There will be a few oranges at St. Andrews this season, of the Tangerine and Satsuma varieties, and other trees are fast recovering from the severe freezing of two years ago. The tree will bear much neglect and abuse if it does not freeze too hard; lemon trees are far more sensitive.

Mrs. L. Harrison.

Washington Co., Fla., April 3.

Wintering Bees, Etc.

My bees have wintered on the summer stands nicely, some with outside boxes packt with short straw and chaff, and a chaff cushion in the super, after placing a burlap on the brood-frames. Others by driving stakes in front and rear of a row of hives, and putting a board cover over them, and boarding up the rear and ends, then filled in around the hives with short straw and chaff (having burlap and cushions on the same as those without outside boxes). Then I made a front enclosure the length of the shed out of lath cut the right length to reach from the ground to the roof, and nailed to two strips of narrow inch boards; then set it snugly against the front of the shed, letting the upper slat rest in the old-style wooden latch holder, fastened to the corner posts, so it can be lifted off to clean away dead bees, etc.; or in spring to set away for future use. The posts can remain, as they are not seriously in the way.

I started last spring with 15 colonies, 2

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☞ A sample of either honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

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WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

not strong, had 5 swarms, 3 fairly early, and 2 in August—21st and 31st latest; and the last was a second swarm from a strong colony. I also bought 3 good colonies about Dec. 1, and brought them home in good condition, and they, too, are all doing well. I had some fears as to the last or second swarm that came off Aug. 31, and gave it a frame or two of honey (in November) from the upper story of one which had a surplus, and they have come through nicely, and appear strong to-day.

I noticed the suggestion of S. T. Pettit in regard to a plan to encourage the bees to fill the outside sections in the super, and I have prepared 2 supers as he suggests. I like the idea. I think an inch piece put under the bottom-board at the rear end would be an improvement, as it would bring the hive-body to the same original level, and leave the bottom-board with a good forward slope downward, giving the bees a good chance to clean out everything dropping on the bottom.

I think the "old reliable" American Bee Journal is keeping well up with the advance in bee culture, and its editor is not slack, "as some men count slackness," to keep in the advance generally, of which I am glad.

GEO. MCCULLOUGH.
Page Co., Iowa, April 6.

Prospects Good for this Season.

We are having a fine shower to-day, with very chilly northeast winds blowing. At this date everything bids fair for the bees, which have, so far as I can learn, come through the winter in very good condtion. Mine are so, and have plenty of stores yet, with lots of sealed brood, and some young bees have been out of the cells as long as one week. Peach orchards are in full bloom, goosberries are blooming, and will be fine for the bees for two weeks. Then the redbud trees are almost in bloom, which will be fine, and will last for two or three weeks, then come the hawthorne trees, which are good, and come in a good time. There are three kinds or varieties of them, which place their blooming at about three weeks, but they did not do much last year. In 1895 my bees stored some surplus honey from them, which was fine, but the honey had a peculiar appearance—it was very clear, and after being sealed in the cells it seemed to be full of little beads or bubbles. It was of good taste and thickness.

After these come plum bloom, apples, cherries, and wild white clover, which is getting to be plentiful; and what is called the Simpson honey-plant, growing wild, and other wild flowers too numerous to mention. And with all these there has been plenty of rain so far, to give them life and vigor such as I like to see them have for the secretion of nectar. Everything is very early here this spring. I am feeling very uneasy for the fruit crops yet in this section.

With all looking so promising at this time, bees have not done much as yet, on account of cool, windy, disagreeable days. I am in great hopes to see the grandest flow of nectar imaginable this season, and to see the bees store a bountiful crop of surplus honey. I have never seen better prospects for a good crop of honey since I have been keeping bees than at present. I hope present prospects will continue throughout the season, with good results.

R. L. HASTIN.
Cedar Co., Mo., April 8.

Trying to Grow Sweet Clover.

As Dr. Miller has askt for experience in sowing sweet clover, I will send mine in exchange for some of the many valuable things I have gotten from the Bee Journal.

I bought five pounds of sweet clover seed from a reliable supply dealer, and sowed it in three places—one was a choice piece of land, low, black, and damp, which had been summer fallowed the past season. I cultivated, sowed the seed, and harrowed six to

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The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise: all the cells sealed except the row of cells next the wood.

NO. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed: both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

Chicago, Ill., Mar, 19.—Fancy white, 11@12c.; No. 1, 10@11c.; fancy amber, 9c.; No. 1, 7c; fancy dark, 8c.; No. 1, 7c. Extracted, white, 5@7c.; amber, 5@6c.; dark, 4½c. Beeswax, 25@27c.

Stocks are working down, but there is no improvement in price. The season for comb honey is drawing to a close. Any one intending to market in the cities should do so now.

Albany, N. Y., Mar. 20.—Fancy white, 12-13c.; No. 1, 11-12c.; fancy amber, 9-10c.; No. 1, 8-9c.; fancy dark, 7-8c; No. 1, 6-7c. Extracted, white, 5-6c.; dark, 3½-4c.

Demand is all that could be expected at this season. Stock on hand small.

Indianapolis, Ind., Feb. 20.—Fancy white 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Boston, Mass., Feb. 20.—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

St. Louis, Mo., Feb. 19.—Fancy comb, 12@@13c.; No. 1 white, 11@11½c.; amber, 9@10½c.; dark, 7@8½c. Extracted, white, in cans, 6@7c.; amber, in barrels, 4@4½c; extra, 5c.; dark, 3@4c. Good demand for barrel stock—comb slow sale. Beeswax, 23@23½c.—prime finds ready sale at 23½c.

San Francisco, Calif., Apr. 7.—White comb, 9-10c.; amber, 5-7c. Extracted, white, 5½c.; light amber, 3½-4c.; dark tule, 2¾c. Beeswax, fair to choice, 24-26c.

Philadelphia, Pa., Feb. 2.—Fancy white comb, 12-13c; fancy amber, 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3½-4c. Beeswax, 25c.

Season is getting over for comb honey—very little demand. Extracted in good demand.

New York, N. Y., Apr. 10.—White comb, 10@11c.; amber, 8@9c.; dark, 6c. Ther is a fairly good demand for comb honey yet, and it keeps coming in small lots. Extracted is quiet at unchanged prices. The demand for buckwheat extracted has ceast, and no more sale for it. Beeswax is quiet at 26@27c.

Cincinnati, Ohio, Apr. 9.—Demand is slow for all kinds of honey, with a fair supply. Comb honey, 10@13c. for best grades; extracted, 3½@6c. There is a fair home demand for beeswax, with a fair supply, at 22@25c. for good to choice yellow.

Kansas City, Mo., Apr. 10.—No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 9@10c.; No. 1 dark, 8@9c. Extracted, white, 5@5½c.; amber, 4@4½c.; dark, 4c. Beeswax, 25c.

Detroit, Mich., Mar. 12.—No. 1 and fancy white comb, 11-12c.; other brands, 7-10c. Extracted, white, 5-6c.; amber and dark, 4-5c. Beeswax, 24-25c.

Minneapolis, Minn., Feb. 20.—Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Buffalo, N. Y., Apr. 16.—Very fancy honey, mostly 10 and 11c.; fair to good, from 9c. down to 7 and 8c.; very poor, dark, etc., 5-7c. Very little, if any, extracted in the market to quote. Write us before shipping.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

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Kansas City, Mo.
C. C. CLEMOMS & Co., 423 Walnut St

Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
WILLIAMS BROS., 80 & 82 Broadway.

St. Louis, Mo.
WESTCOTT COM. Co., 213 Market St

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S. H. HALL & Co.

Milwaukee, Wis.
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Honey - Clovers !

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
Alsike Clover........	.70	$1.25	$3.00	$5.75
Sweet Clover (white).	.70	1.20	2.50	4.75
White Clover...	.90	1.60	3.75	7.00
Alfalfa Clover.... ...	.60	1.00	2.25	4.00
Crimson Clover.......	.55	.90	2.00	3.50

Prices subject to market changes.

Add 25 cents to your order, for cartage, if wanted by freight.

Your orders are solicited.

GEORGE W. YORK & Co.
CHICAGO, ILL.

One Cent Invested in a postal card will get my large Catalog of All Root's Goods. Send list of what you want, and get price.
M. H. HUNT, Bell Branch, Mich.
WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

BEE-KEEPERS ! Let me send you my 64-page Catalog for 1897.
J. M. Jenkins, Wetumpka, Ala.
Mention the American Bee Journal.

PATENT WIRED COMB FOUNDATION
Has No Sag in Brood-Frames
Thin Flat-Bottom Foundation
Has No Fishbone in the Surplus Honey.
Being the cleanest is usually worked the quickest of any Foundation made
J. VAN DEUSEN & SONS,
Sole Manufacturers,
Sprout Brook Montgomery Co., N. Y.
Mention the American Bee Journal.

eight times. I mowed the weeds off once in the summer.

The second was sowed in a strip a rod or so wide, starting at the plowing on one side of the road under some large trees, and ending just inside a pasture.

The other was sowed in a Nebraska tree claim that had not been cultivated for some years, and grown up to sunflowers.

Now for the result: They were all about alike, all sprouted and came up very scattering, grew very spindling, and all died before fall.

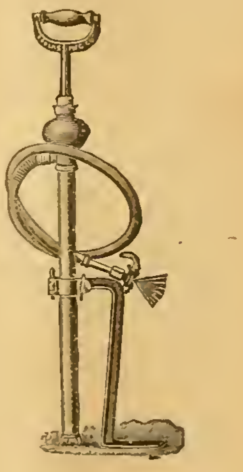
Some 25 miles from here, near old Fort Kearney, on the Platte bottom, it grows without any coaxing, and has taken possession of the roadbeds, and got into some parts in spite of a bitter fight on the part of the farmers. I sowed Alsike a few days before the sweet clover, and have a nice stand in the tree rows of my orchard.

My bees have wintered well, in 8, 10, 12, and 16 frame dovetail hives, on the summer stands, put in rows 6 inches apart, with the entrances left open, packt with chaff, and a load of straw on top of each 10 hives.

J. T. KELLIE.

Kearney Co., Nebr., April 3.

Fruit Success.—The success of the fruit-grower of the present time depends more largely upon the appearance and quality of the fruit itself than anything else. Gnarled, knotty fruit, or that which shows the effect of insect workings, must be sold at a very low price, if it finds a market at all. Uneven and scrawny bunches of grapes, which show the effects of Phylloxera or other fungoid diseases, lose money to their grower. The sickly, insipid or bitter peaches and plums, which indicate yellows, mildew, black-knot, etc., find poor sale at any price. Practically the same is true of berries and small fruits. It is only the best fruit that escapes the keenest competition and finds a ready market. The man who does not grow the best fruit is not living up to his full privilege. This is an easy accomplishment by the employment of correct methods, and that embraces complete and thorough spraying of all vines, plants and trees. For this purpose the outfit which is here illustrated will be found very complete and efficient. It is the "Bordeaux" Brass Garden and Spray Pump, especially designed for spraying in gardens, greenhouses, and among small fruits, and is manufactured by the Goulds Mfg. Co., Seneca Falls, N. Y. They make a full line of spraying goods which are fully described and illustrated in their free book on "How and When to Spray." Write them for a copy at once, not forgetting to say you saw their advertisement in the American Bee Journal.



Illinois.—The spring meeting of the Northern Illinois Bee-Keepers' Association will be held Tuesday, May 18, at the residence of H. W. Lee, at Pecatonica, Ill. All are cordially invited to attend. Means of conveyance will be at the station for the benefit of those coming on trains. B. KENNEDY, Sec.

New Milford, Ill.

Connecticut.—The 6th annual meeting of the Connecticut Bee-Keepers' Association will be held at the capitol at Hartford, May 5, at 10:30 a.m. Let all interested in bee-culture make an extra effort to be present.

Waterbury, Conn. MRS. W. E. RILEY, Sec.

FREE —A Copy of— Successful Bee-Keeping, by W. Z. Hutchinson; and our 1897 Catalog, for 2-cent stamp, or a copy of the Catalog for the Asking. We make almost Everything used by Bee-Keepers, and at Lowest Prices. OUR

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Don't buy cheaply and roughly made Goods, when you can have **the best—such as we make.**

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[monthly, now in its 7th year]

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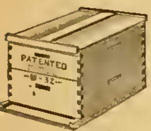
JAMESTOWN, N. Y.



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won Highest Honors at the Fairs, and pays Premiums to purchasers

of	hives,	for the best	Danz. sections
50	$50	100	"
" 25	" 25	" 50	" "
" 20	" 20	" 40	" "
" 10	" 10	" 20	" "
" 5	" 5	" 10	" "

☞ Further particulars regarding the premiums, also special catalog of the Danzenbaker Hive and System, furnisht on application. Address,

Francis Danzenbaker, Medina, Ohio.

Care The A. I. Root Company.

I ARISE

TO SAY to the readers of the BEE JOURNAL that

DOOLITTLE

has concluded to sell —BEES and QUEENS— in their season, during 1897, at the following prices:

One Colony of Italians on 9 Gallup frames, in light shipping-box	$6 00
Five Colonies.....	25 00
Ten Colonies.. ...	45 00
1 untested queen.	1 00
6 " queens	5 50
12 " "	10 00
1 tested Queen...	$1 50
3 " Queens .	3 50
1 select tested queen	2 00
3 " " Queens	4 00
Select tested queen, previous season's rearing	4 00
Extra Selected for breeding, THE VERY BEST..	5 00

About a Pound of BEES in a Two-frame Nucleus, with any Queen, $2.00 extra.

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☞ Circular free, giving full particulars regarding the Bees and each class of Queens.

Address

G. M. DOOLITTLE,

11A25t BORODINO, Onon. Co., N. Y.

LEADS THEM ALL!

Williams' Automatic Reversible Honey-Extractor

LEADS THEM ALL. **You want the best.**

Price-List Free.

Van Allen & Williams, Barnum, Wis.

8Etf *Mention the American Bee Journal.*

BIG MONEY IN POULTRY

OUR LARGE GUIDE for '97 just out. Something entirely now. 100 pages. Printed in finest colored work. Contains everything pertaining to Poultry in full. **PRICES REDUCED** on 1st Prizo Winners and Eggs. Postpaid on receipt of 15 cents, if you write now.
JOHN BAUSCHER, Jr., Box 94 Freeport, Ill.

10A13t *Mention the American Bee Journal.*

20th Year **Dadant's Foundation** **20th Year**

Why Does It Sell So Well?

Because it has always given better satisfaction than any other.

Because **IN 20 YEARS** there have not been any complaints, but thousand of compliments.

We Guarantee Satisfaction.

What more can anybody do? **Beauty, Purity, Firmness, No Sagging, No Loss. Patent Weed Process of Sheeting.**

Send Name for Our Catalog, Samples of Foundation and Veil Material. We sell the best Veils, cotton or silk.

Bee-Keepers' Supplies of All Kinds.

LANGSTROTH ON THE HONEY-BEE, Revised.

The Classic in Bee-Culture—Price, $1.25, by mail.

CHAS. DADANT & SON,

Please mention the Am. Bee Journal. **HAMILTON, Hancock Co., ILL.**

4¼ SECTIONS 4¼ SECTIONS

Our business is making Sections. We are located in the basswood belt of Wisconsin; therefore the material we use cannot be better. We have made the following prices:

No. 1 Snow-White.		No. 1 Cream.	
500 for	$1.25	500 for	$1.00
1000 for	2.50	1000 for	2.00
2000 for	4.75	2000 for	3.75
3000 for	6.75	3000 for	5.25

If larger quantities are wanted, write for prices.

Price-List of Sections, Foundations, Veils, Smokers, Zinc, Etc., Sent on application.

6A35t **MARSHFIELD MFG. CO., Marshfield, Wis.**

ROOT'S GOODS! ✻✻✻✻✻

☞ Before placing your order for this season, be sure to send for Root's

1897 Catalog, Ready Now.

Our 1897 Hives, with Improved Danzy Cover and Improved Hoffman Frames are simply "out of sight." Acknowledged by all who have seen them to be a great improvement over any hive on the market, of last year.

WEED TRADE MARK NEW PROCESS

Comb Foundation

Cheaper and better than ever—clear as crystal, for you can read your name through it. Process and machinery patented Dec. 8, 1896. Samples of the New Foundation free.

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AMERICAN
BEE JOURNAL
DEVOTED EXCLUSIVELY TO THE INTERESTS OF HONEY PRODUCERS

37th Year. CHICAGO, ILL., APRIL 29, 1897. No. 17.

Contributed Articles

A Full Description of the "Dadant Hive."

BY C. P. DADANT.

We have received the following questions concerning the hive we use:

"Will you please give me through the columns of the American Bee Journal, the dimensions of the large hive you use? Also, does the brood-chamber have to be reduced with dummies during the honey-flow, and to what extent?—H."

The large hive that we use, and which has been called the "Dadant Hive," altho it is only a modification of the original Langstroth-Quinby hive, is intended for our climate. A number of its features make it desirable in this cold region, and we believe a great part of our success with bees is due to the greater safety with which we can winter bees in the open air with such a hive. The frames are deeper than the regular Langstroth-Simplicity frame, and can therefore allow of more honey over the cluster. This is quite a point, for, altho it is well known that bees do move sidewise, in very cold weather, to reach the honey, yet in test winters, in such winters as we have had, in which half of the bees in the country perish, it is often noticeable that many colonies die with honey only a few inches from them on the same comb, because the cold is so intense that they cannot reach it after they have consumed everything above the cluster.

This hive is not a cheap hive, and therefore will never be popular. But it has one advantage—it may be manufactured easily by any one with the least knowledge of carpenter work, and without other tools than a square, saw, hammer, and two or three planes.

At the present day, it looks as if inventors of new hives took particular pains to get up some contrivance that can only be manufactured in factories and with special tools. This hive is not patented in any of its features and is consequently free to all, without royalty or farm right. In truth, there are no features in it that would be patentable.

Fig. 1 shows the diagram of the hive. The two supporting cross-blocks on the underside are now made to lie lengthwise instead of crosswise, as in the engraving, and give a support to the slanting apron-board in front. The size of the blocks is 2x4x28 inches, cut slanting in front. They may be done away with and replaced by light cleats; but we prefer to have our hives pretty well off the ground, in this way. The bottom-board is cut crosswise of the hive, and made of matcht lumber—size 17⅛x24 inches. In giving the dimensions we take it that the lumber used of ordinary one-inch thickness has been drest down to 13/16.

If it is desirable to make the hive last as long as a colony of bees can occupy it, the underside of the bottom and the blocks may be painted with heated coal-tar. We painted some 40 hives in this manner in 1870—27 years ago—and those bottom-boards are all good yet. One would imagine that the smell of the coal-tar would cause the bees to leave, but such is not the case. If the tar is heated before it is applied, it soaks so well into the wood and dries so thoroughly that but little smell is noticeable after a few weeks.

By looking at Fig. 2, the reader will notice that the hive is made so as to fit the bottom inside of it on the sides and back, the sides being rabetted and the back doubled. This fitting serves two or three purposes. In the first place, as a hive is always supposed to slant slightly forward, the sides and back efficiently shed the water from the bottom-board which is kept at all times perfectly dry. The double joint that it makes, keeps out insects most thoroughly. Another advantage is that there can be no admittance of cold air through the back, since it is double and at break joints. These matters may be of small importance, but, as Heddon said, "Bee-culture is a business of details." It is these small points that save the weak colonies, and we believe it is far better to have less hives and better ones, than to have a big stock of boxes that are constantly getting filled by swarming, and getting empty again—by winter losses, owing to bad joints; by robbing, from the same cause; by starvation, from not having room enough for a good supply of stores, etc. If our bees are worth taking care of, let us do it right.

The apron, C, is intended to help the heavily laden bees that have mist their footing, to gain the entrance without having to take flight again, and it also keeps the grass and weeds away from the entrance, if the bee-keeper happens to overlook his hives for a few days in warm, weed-growing weather. The size of this apron is 7x17⅛ inches; body of hive, D, D, front and rear, 12¼x16½; rabbets at top to support frames, ½x½, unless a metal frame-spacer is used as in the "St. Joe" hive, when the rabbet may be a little deeper. Sides of body, 2 pieces 13x21, rabbeted at the bottom as in Fig. 2. Depth of rabbet ¾; width 5/16.

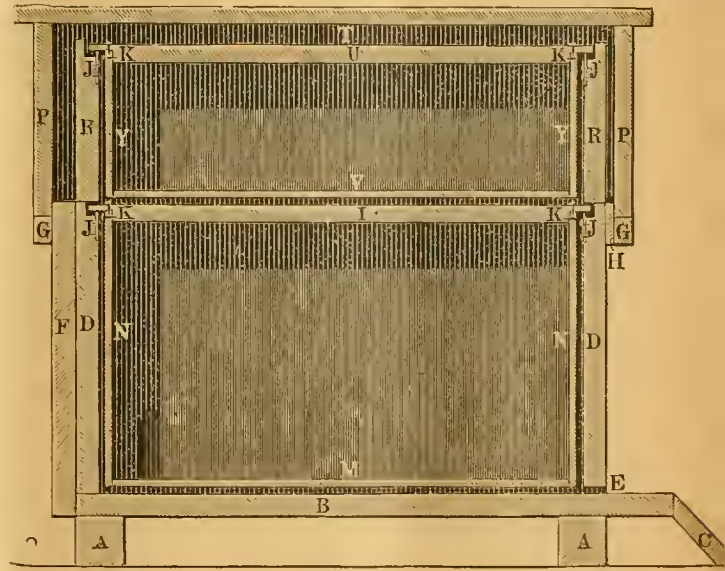


Fig. 1—Diagram of Dadant Hive.—From Langstroth Revised.

F, rear board used as stated before, to shed water and shelter the back; size, 13x18⅛. E, entrance, 8x⅜. If wide lumber is scarce, the sides of the hives may be made of matcht lumber, care being taken to break joints and to turn them so as to shed water.

H, strip ⅛x1¾x18⅛, used to widen the top edge of the hive in front. This looks superfluous, and yet we prize it very much. One of the greatest objections we have to the cheap hives is the almost utter impossibility to fit a tight cover over the frames during cool spring weather. When the hives are new and dry all goes like magic, and everything fits minutely; but after they have been in the weather two or three years, the joints warp, they become filled with propolis, and every time you remove the cover you have to use a chisel to pry it apart, and make the joint that much worse. A wide top edge and a telescoping cover do away with all this, and the wide edge allows us to fit an oil-cloth, or enamel-cloth, carefully over the frames, without leaving any uncovered joints at the ends. The robbers do not get a chance, and things are much more satisfactory. Perhaps some of my readers have had experience with open corners, and having to fit mud, or bits of pine, or even grass, in those joints, when the weather is cool and the robbers plentiful. There are times when it looks as if even the bees of that hive were hovering around that crack to make you think they were trying to rob their own hive, and destroy your peace of mind.

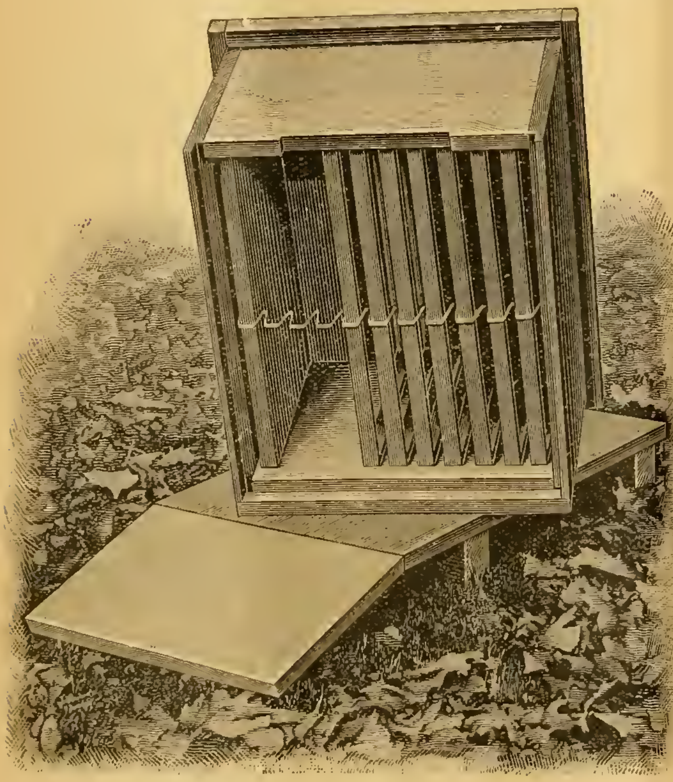


Fig. 2—Showing the Spacing-Wire. (*Cuts from Langstroth Revised by Dadant.*)

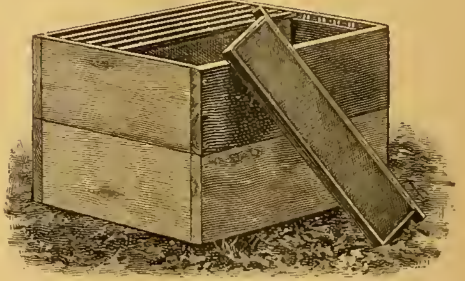


Fig. 3—Two Extracting-Supers.

G, G, 4 pieces, 2 for sides, 1¼x24; 2 for ends, 1¼x18⅛. Cap or cover, to telescope over the hive. P, P, front, back and sides of cap, two pieces for sides, 8½x24; two for ends, 8½x18⅛. These may be made 1 inch longer and halved into the sides to nail both ways, and the same thing may be done with the body. Top of cap, flat, 21x25 inches. We make this of matcht lumber, and use a roof over the hive made of rough boards to shed the rain and shelter the hive from the sun. A well-painted hive, sheltered in this way, should last till the combs are too old to be of any use—30 years or more.

Extracting super: sides, two pieces, 6⅝x21; ends, two pieces, 6⅝x16, rabbeted for frame shoulders the same as the body. This makes the extracting-super ½ inch narrower than the lower story, so the cap fits over it readily. Ten frames only are used in the super and ten frames and one division-board in the body. Body frames: Top-bar, 1⅛x20¼, triangular or square as desired; shoulder at each end 1⅛. End-bars, two pieces, ⅞x¼x11¼. Bottom-bar, 13/16x½x18. Extracting-frames, same top-bar, same bottom-bar; end-bars ¼x⅞x6.

This is a rather dry description, but with the help of the illustrations the reader can surely make it clear.

Fig. 3 represents two extracting-supers such as we use.

Honey sections may be used, for comb honey, by making a section-case holding 32 or 36 sections. One has but to choose from the many styles in use.

If comb honey is wanted, the hive had best be reduced at the beginning of the honey harvest, by the use of the division-board or dummy to the number of frames actually filled with brood. This is what our leading bee-keepers, in the East, do, and they also use large hives—so I was told by one of our prominent editors, who praises small hives for all that. But we never reduce the size of the hive for extracting, and do not care where the bees put the honey, so we may be able to keep them supplied with all the combs they need.

Hancock Co., Ill.

Bee-Stings Cure Toothache and Rheumatism.

BY S. A. DEACON.

I used to be a martyr to toothache, but since I have been engaged in bee-keeping I have often congratulated myself upon a comparative immunity from this, one of the most terrible of all the ills to which human flesh is heir.

Owing to prolonged drought, I have fust very little lately with the bees, my son doing what little required to be done amongst the hives; and where being stung, and that several times, was an almost daily and unheeded occurrence, it is now several months since I have had a sting; and lately I have been suffering agonies from aching old stumps and newly decaying teeth, and a glass containing a solution of carbonate of soda—the only thing, I find, that gives relief—was, day and night, never beyond my reach.

One night, recently—about 8 days ago—when just dozing off to sleep, another and almost forgotten enemy, in the shape of sharp, rheumatic pains in the legs, suddenly made its reappearance. The teeth had a respite, meantime, as tho the same pain had descended into the lower limbs, so that tho in great agony, I could not resist saying to my son—whom my groans had awakened, and who called to know if my teeth were troubling me more than usual—that the infernal pains had shifted their pivot, and that I was now suffering from a terrible attack of toothache in the legs!

The pains not having subsided much by the following morning, and we having frequently read in the columns of the American Bee Journal of the almost magical effects of small, hypodermic injections of formic acid, in the shape of bee-stings, in allaying rheumatic pains, I resolved to try old Mr. Blobbs' plan, so humorously illustrated in the Bee Journal of Nov. 23, 1893. To that end I donned my face-veil, encased my hands in a pair of woolen socks, and bared my suffering legs, holding the latter in front of a hive while my son roused and irritated the inmates. I stood it bravely for awhile, till, like old Blobbs, I had to scoot for dear life! However, to make a long story short, the pains subsided *at once*, and I have had immunity from both them and the *toothache* ever since! I am still too far from the edge of the wood to whistle; tho, should either of the friends return to a renewal of the attack, Dr. A. Mellifica is always within reach.

I am prompted to relate this experience by a feeling of philanthropy, that other sufferers may be enabled to adopt the same remedy. The stings act as a counter-irritant, and the remedy is far quicker, less troublesome, and more cleanly than would be a blister, embrocation, or a mustard poultice; and, what is more, in my opinion, *far more efficacious* and lasting in its effects than any of these.

I do not believe it to be necessary, in case of neuralgia or toothache, that the stings should be inflicted just in the neighborhood of the seat of pain, but that placing, say the hand and bare arm, in close proximity to a disturbed hive would do the business quite effectually. We even know—or perhaps some of us do—that a remedy frequently had recourse to for toothache, is to tie a mustard poultice over the thumb, and that on the opposite side, or hand, to that of the jaw in which the enemy is quartered.

Tho I may some day perhaps give up bee-keeping as a pursuit adopted as a means of procuring butter for my bread, I shall certainly always find a nook in garden or yard for a hive of bees, so as to have Dr. Apis Mellifica always on hand.

I hope others similarly affected will give the cure a trial and report. Perhaps Dr. Peiro will kindly explain the why and the wherefore, and tell us in what way formic acid acts on the nerves and blood. South Africa.

Chunk Honey—Quilts for Bees.

BY MRS. L. C. AXTELL.

S. M. S., of Knox Co., Nebr., asks what he should do with his brood-combs filled with honey, some of it candied. If it is white and new, or has not been used by the bees for rearing young, or is not full of pollen, etc., I should cut it up into nice square chunks, put it in a new milkpan and take it to a grocery, or sell it or exchange it for groceries, or exchange it at the meat market for meat, taking a due-bill for the pan and honey, and weekly, as I wanted the meat, get only what I wanted from time to time, and set it down on the due-bill until all was traded out. Our meat man buys our chunk honey readily this way. When he sells he puts a pound or more in the little wooden butter or lard dishes, and sells with the honey. He does not object to handling our honey in that way.

Often the neighbors will prefer to buy it cut out of sections, because they have no wood to buy when they buy directly of us. We never have any trouble to work off all such chunk honey. Grocerymen generally think or say it is too dauby to handle, and will not readily take hold of it until the combs in sections are sold out; after that, rather than be without, they will take hold of it and sell. But to have them sell fast, we must pay them a cent or two for handling.

MATERIAL FOR QUILTS FOR BEES.

After years of experience with coverings for bees in winter, I have come to the conclusion that common, coarse sheeting—the coarsest we can get—is cheaper than burlap or duck, as it is much wider and cheaper, and bees will cover either over with propolis in two or three winters, so we need to have a clean one.

Then, farther, I go to some one in the nearest village and ask them to let me pick over some of their heavy paper rags, such as old carpets, quilts, pant. coats and vests—these I get by the pound very cheap (generally one cent), and I fold them and lay on top of them clean cotton cloth, and then if the bees eat through the cloth, or if the cloth is old, and has some holes in it, they do not drag the chaff down among the bees, and I put on enough of such thick quilts to make the bees much warmer than the light chaff. As far as I have time I cut and fit over those old clothes into square quilts, by piecing, sewing, and tacking together, until now we have enough for all our 150 hives. I never put them on the hive without a cotton cloth underneath, because I do not want them covered with propolis; and I do not line them with the new cloth because when the cloth gets covered with propolis I want a new one, and if the old clothes (unless strong cloth) are laid directly on the frames, bees will tear them to pieces.

As soon as the chaff is taken out of the hives, these old cloths and quilts and cotton cloths are laid away, carefully spread out and piled up smooth. If thrown loosely in a pile, when wanted the following season, they are not so quickly put upon the hives, and the sheets stick together with the propolis, and it takes considerable time to pull them out straight.

Ever so much time is saved if everything is cared for and kept in readiness to use when wanted. Often, when these old things are taken out they look so useless. I knew of one woman who wanted to burn all such. One is tempted not to carefully save them altogether, and then we have a big time to hunt for them when wanted. Warren Co, Ill.

The Detestable Bee-Space Severely Arraigned.

BY "COMMOM-SENSE BEE-KEEPING."

Among the fruitful causes of success in bee-keeping, *the centralization of heat is the chief point to be observed.* I would not "stick a pin there," but I would plant a post on that point as big as the largest tree in the Yosemite Valley, and tall enough to be seen by the bee-keepers all over the world; because it may be claimed without fear of successful contradiction, that it is the main point in bee-keeping. First, for a fruitful brood-chamber; second, for rich results in surplus honey; and third, for success in solving the wintering problem.

I believe that the bee-space craze has killed thousands of bushels of bee-brood in the comb, in the spring, as well as many more mature bees between the combs in the winter.

Do you ask, "How?" I answer:—by preparing the hive for the sudden contraction of the cluster, which uncovers the brood-nest in the spring when the weather changes from the intensely warm midday sunlight to the cold and shriveling storms so common to the spring season, which blow the cold breath of Death into the bee-hive, by puffing away the heat of the brood-nest, and scattering it through the bee-spaces around and above the brood-frames to the farther corners of the hive, to condense and waste, while shivering bees huddle together to avoid the chilling draft, prompted by the instinct for self-preservation of life, (which is the first law in all animal nature), leaving the outer portions of the brood-nest uncovered for the brood to chill and die; which they need not have done had it not been for the ventilation caused by the bee-space which forces the hovering cluster to contract and expose a portion of their young to perish.

The bee-spaces act in the same way in a hive that a dozen or more holes would act in the bottom of a hen's nest—while the faithful mother hen might be doing her best to hatch her eggs, all of the time that the holey old nest was cooling them down under her, and spoiling them. And it is just as plain to see that the same cause and principle would work similar unhappy results when the heat in the bees' brood-nest full of eggs is disturbed by the cooling influence of the ventilating draft encouraged by the open bee-spaces around and above the nest full of bees' eggs.

The voice of Nature demands the concentration and retention of heat in the brood-nest, and if her demand is disregarded, Death will walk into the bee-hive, and claim every naked body he may find uncovered to blow his cold breath upon. Close up the bee-space around and above the brood-chamber and keep him out.

The bee-space may be handy for the bee-keeper's fingers, but it is bad for his pocket in still another way.

What a din there has been for many years over the question of "how to make the bees work in the sections;" when, in fact, if the right conditions of proximity and heat exist you can't keep the bees out of the sections when they have surplus honey to store; but we have been putting a discouraging condition between the sections and the brood-nest, by interposing bee-space arrangements, single, double, and triple, along with hook-and-crook honey-boards with bracket edges, queen-excluding, double-break-joint, joint and put-out-of-joint claptrap arrangements, *ad infinitum*—t-i-o-n, tion—t-y-ty, and so on. And these are just what my bees have objected to till I have pitcht them out of my apiary—not the bees, but the spaces, and some other clink traps which are like the Yankee's razors—"Good to sell, but not fit to use;" and I adopted something a good deal handier and more perfectly adapted to the instinct and other conditions of the bee's nature, and here is the secret of the matter with my solution of the same:

The bees cannot work in any part of the hive where there is not heat enough to keep the wax sufficiently soft to make it weld readily when they wish to work it; hence they will not store honey nor make comb till the heat in the upper part of the hive can be maintained up to a certain degree. Now watch out, for we are approaching the reason why bees will do better sometimes in a box-hive than they will in a hive with bee-spaces all through it, because the heat to soften the wax must come from the brood-chamber, in the early part of the season, at least.

Now notice that when the heat commences to rise in a hive fully provided with bee-spaces, it is carried up by the draft through and around the brood-nest, even when the brood-nest is not warm enough to spare it, and is taken by a side draft through the open spaces above to the vacant corners of the hive where it cools, condenses, and falls, and returns in the circuit to continue the same cooling process on the brood-nest, and to retard both the warming of the brood-nest and the sections. So that the booming of the colony in the spring is by this means deprest, and the storing of the honey kept back, until the lateness of the season will furnish heat to help the colony to overcome the chilling influence of the bee-space; but by that time, in many cases, the flow of honey is past, and the poor bee-keeper wonders why his bees did not give him a nice yield of surplus honey, without even guessing that the handy bee-space was largely to blame for his failure by opposing the centralization of heat at a time when and in the place where surplus honey should have been put.

Another barrier against the centralization of heat in the sections is that form of section which has all four sides cut to admit of the passage of the bees from one to the other all around, for it also admits of the passage of the heat away from where it should be retained to encourage the bees to work at the warmest point in the sections.

The writer employs a hive with closed-end frames, full depth (similar to Heddon's frame, but not the same in several respects), which excludes the side bee-space. The frames have ¾-inch top-bars and ¼-inch space between them on purpose to obliterate as much as possible the distinction between the brood-nest and the sections, for the bees like to store honey as near the brood as possible, and it is an outrage of their nature to force them to do otherwise.

Then the pound sections are tightly bound together and rest flat on the top-bars of the brood-frames to the utter exclusion of every crack of bee-space above the bees. These sections are wedged in a case which is built to prevent the escape or distribution of the heat from directly over the frames from which it comes. This is accomplisht by arranging the sections so that they will set, respectively, crosswise of the brood-frames, so that it will be readily seen that their communicating together will form several tunnels 4¼x4¼ inches large, and extending lengthwise along the top-bars, which will retain the heat that gets in them and directly induce the bees to come up there and work.

Sooner or later I have used several of the leading kinds of hives in America, and I believe that this plan more nearly approaches the compact solidity of the box-hive to accommodate the instinct of the bees, than any other. And while it is just as easily opened, and the frames just as easily separated as with the hives where the hanging frames and the bee-spaces are employed, I believe it is equal to the superior box-hive in three particulars where the hanging-frame and the bee-space hive come far short of it, viz.: 1st, in successful wintering; 2nd, in booming the colony in the spring; and 3rd, in the early storing of honey in the top of the hive.

Pennsylvania.

⁂

Improvement on the Hive-Corner, Etc.

BY GEO. W. BRODBECK.

The one weak point in the construction of the Dovetailed hive is quite noticeable in this country, due to the extreme heat warping any part that is not securely nailed. The old method of construction, where the end-piece at the top corner, forming the rabbet fails to join on to the sides, consequently warping, and resulting in a small bee-entrance at the corners. To remedy this defect I devised an extension of the end corners as per illustration, which permits proper nailing. All California hives are now patterned after this improvement. I have never applied for a patent on this, consequently all are free to use it.

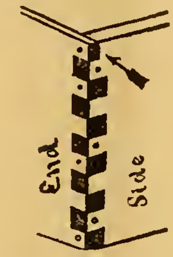
FOLLOWER AT THE END OF THE SUPER.

This will be the third season that I have used a section super with a follower at the end of the sections in addition to the one on the side. This permits wedging from the end as well as the side, and aside from lessening the possibility of propolizing the edges, the sections are perfectly true. To wedge up I cut two V grooves in the end-piece and side of the super, using a V wedge. I use pattern-slats without the customary end-pieces, and can thus handle them readily, and, whenever they sag, simply turn them over.

EASY WAY OF TRANSFERRING BEES.

I have used various methods of transferring, but have given the following the preference, but these directions will only be applicable to those who have bees in frame hives:

If the bees to be transferred are in a common box and the combs have not been built down to the bottom, cut the box down to the depth of the comb, then turn the box bottom side up, and put spacing-sticks between the combs to prevent contact with each other, then place one of the standard hive bodies on top, closing up all surplus openings on the sides or ends. Now go to a colony of bees and remove a frame of honey, and one containing eggs and larvæ, placing this in the vacant body over the box, filling up with drawn comb or foundation. In a few days, if you keep watch, you will find the queen in the upper story, when you quietly slip a queen-excluder between this part and the old box, and in 21 days you can remove the lower part and dispose of the comb as you see fit.



An Improved Dovetailed Hive-Corner.

As a precautionary measure, I would advise one not to fail to cut a bee-entrance in the old box before reversing, so that the location will be in the same place as the previous one.

I also find this a very simple method to make use of in transferring from odd-sized frames. You avoid exciting the bees (and yourself as well), prevent any likelihood of robbing, and, in fact, dispense with everything that makes transferring disagreeable.

Los Angeles Co., Cal.

CONVENTION PROCEEDINGS

Report of the Illinois Bee-Keepers' Convention

BY JAS. A. STONE, SEC.

[Continued from page 246.]

The committee on State Fair reported as follows, which was adopted:

REPORT OF THE STATE FAIR COMMITTEE.

To the Illinois State Bee-Keepers' Association:

We, the Fair Committee, hereby submit the following report:

The committee met in December, 1895, and drew up a premium list aggregating $284, an increase of $31 over that of the year before. This was presented to the Board of Agriculture at their meeting early in January, 1896, and was adopted. In September we met the Committee of the Board to apportion space for exhibits in the Dome Building, and secured the northwest corner of the gallery. This space was fully occupied, and the south wall almost to the doorway besides. We thus succeeded in getting the exhibits groupt much better than the previous year.

The actual space occupied was about 33 per cent. greater at the Fair of 1896 than at that of 1895. The exhibits were greatly increast in every department, and there were exhibitors from Indiana, Michigan, and Iowa, besides those from our own State.

For a verdict as to the success of the apiarian show, we need only to refer to the free and unsolicited testimonials of the officials of the Board themselves. They not only exprest themselves as being very well pleased with the exhibits, but offered to increase the offerings for premiums, and give us a more desirable location for our exhibits at the next Fair.

Mr. Cater, Superintendent of the Apiarian Department, had encouraged us to ask for two separate premium schedules—one to be limited to exhibitors within the State, the other to be open to the world. The committee met on Jan. 12 (the day the Board of Agriculture held its regular meeting), and in obedience to that idea formed the two schedules, amounting in the aggregate to $464, and submitted to the Board, which were duly adopted. The committee found it devolved upon them to do this rather than postpone the matter until after this convention, as the Board proposed to get to work upon their premium list at once, and such postponement would make it too late to get our new list schedule in.

One feature of the last two years' work has been to try the merits of the rules for judging the exhibits, and we can safely say they have past the experimental stage, and have proven a decided success. They furnish at the same time standards toward which exhibitors may work, and by which the judge may award the premiums. They bring order out of chaos, and make judgments more just. We trust experience has indicated whatever imperfections there may be in the rules themselves. With a view to correcting these imperfections, the committee lately undertook their revision, and the result of their labor is herewith submitted.

GEO. F. ROBBINS, }
C. BECKER, } *Committee.*
W. J. FINCH, }

RULES FOR AWARDING ALL PREMIUMS RELATING TO APICULTURE

RULE I.—Each entry shall be scored upon its merits in each and every respect in which it can be scored, according to the formulas given below.

RULE II.—The entry which is best in any respect shall be taken as the standard and be scored the highest number of points allowed in that respect, and all other entries competing for the same premium shall be markt in proportion to their merits when compared with the standard.

RULE III.—Entries ranking equally in any respect shall be scored equally in that respect.

RULE IV.—The entries scoring the highest aggregated number of points shall receive the premiums in their respective order.

RULE V.—The awarding judge shall mark all scores on the score cards furnisht for the purpose, and shall leave the said score cards with the said scores markt upon them, with the Secretary of the State Fair Association.

RULE VI.—The standard package for comb honey shall be sections holding about one pound.

RULE VII.—The standard color for beeswax shall be a pale yellow.

RULE VIII.—Every exhibitor who enters honey-plants shall furnish a correct list of their common names to the awarding judge.

RULE IX.—All nuclei which do not contain queens shall be barred.

RULE X.—All plants that are not recognized honey-plants shall be barred from the exhibit.

RULE XI.—All bees and queens shall be on public exhibition from 9 a.m. until 4 p.m. each day of the Fair, and failure to comply with this rule shall bar the exhibit from competition, or shall cause the exhibitor to forfeit the premium.

RULE XII.—Upon the affidavit of two or more exhibitors the Superintendent of this department shall order the withholding of any premium which has been forfeited according to these rules.

RULE XII.—The standard marking for bees shall be as follows:

1. Dark Italian bees shall show three distinct yellow bands.
2. Golden Italian bees shall show four or more yellow bands.
3. Carniolan bees shall show rings of gray hairs on the abdomen.
4. Cyprian bees shall show at least three yellow bands, and an orange-colored spot on the thorax.
5. Albino bees shall show at least three light yellow bands and a ring of white hair on the abdomen.
6. Black bees shall show plain black abdomens.

SCORE CARD.

Class——— Lot——— Bees and Honey———

Premium No.——— Entry No.———

COMB HONEY.

Quantity [pounds]	40
Display [arrangement and attractiveness]	20
Flavor	10
Condition of the capping [free from travel-stain and water-soakt appearance]	15
Completeness of the capping	5
" " filling	5
Uniformity of the comb	5

EXTRACTED HONEY.

Quantity [pounds]	40
Display [arrangement and attractiveness]	20
Flavor	10
Variety of kinds of honey	5
Clearness of color	5
Body	5
Style of package	5
Variety "	5
Finish "	5

GRANULATED HONEY.

Quantity [pounds]	40
Display [arrangement and attractiveness]	20
Flavor	10
Solidity	5
Variety of kinds of honey	5
Fineness of grain	5
Style of package	5
Variety "	5
Finish "	5

BEESWAX.

Quantity [pounds]	40
Display [arrangement and attractiveness]	20
Purity	20
Color [pale yellow]	20

NUCLEI OF BEES.

Color and markings	60
Condition	10
Brood, all stages	10
Neatness of hive	10
" comb	10

QUEEN-BEES.

Quantity [number]	40
Markings	30
Condition	10
Variety of strains	10
Display [arrangement and attractiveness]	10

HONEY-PLANTS.

Quantity—number	60
Display—arrangement and attractiveness	20
Mounting	20

A motion prevailed to continue the Sate Fair Committee. Mr. Finch, having moved away so far, resigned from the committee, and the President, with the approval of the Association, appointed in his stead the Secretary.

A motion prevailed that the committee on State Fair petition the State Board of Agriculture for a space on the lower floor of the Dome Building, as the committee may arrange.

Mr. Becker was called in the discussion on Dr. Miller's paper. He did not understand why it was that sweet clover should be so much spoken against, when so many weeds that were of no use were allowed to grow along the highways without interruption. We might just as well have all the waste places along the lanes and branches sown with something that would be of value to us, as for useless weeds to grow there, that will scatter their seeds in the wind and otherwise all over the country. He advocated the sowing of sweet clover in all the places that were vacant.

A motion that our Association, through the Executive Committee, ask for an appropriation of $500 from the State, was carried.

A motion was carried that the Secretary request the members and bee-keepers of the State, through the American Bee Journal, to help get through the Legislature the Pure Food Bill (House Bill No. 192), believing that it will fill all the requirements of a Bill to prevent the adulteration of honey.

Next came a paper by Mr. C. P. Dadant, on

WHAT CAN THE GENERAL BEE-KEEPER DO TO IMPROVE HIS STOCK?

In the first place he must Italianize. The superiority of the Italian bees has been conceded long ago, and the Italianization of an apiary is the *sine qua non* of progress, as far as bees are concerned. Some bee-keepers claim the palm of superiority for the Carniolan, or for the Cyprian; but we cannot agree to this. The Carniolan is a black bee, and the fact that a cross between it and our common bee cannot be readily detected is an insuperable objection to them. The Cyprian is too cross for anybody.

To improve our stock we must improve the breeders. We must select the father and the mother. In bees, selecting the father seems an impossibility; but we can make use of our control of the apiary to at least decrease the number of drones in the hives that we do not want, and increase them in those of our selection. This is done readily by removing the drone-comb from the inferior colonies, and placing enough for a good supply of drones, in some of our best colonies. The selection of the mother is much more easy. Naturally the best colonies will swarm and rear good queens by the law of the survival of the fittest; but our best colonies are also our best honey-producers, and if we want both bees and honey, we must resort to artificial breeding of queens, and division.

It seems to me that in the above words I have outlined enough for a three days' discussion, and will now ask the members to do the rest. C. P. Dadant.

Mr. Black—There has not been a crop of honey in my neighborhood for five years, and in such a case it did not matter what one did, he would get no honey. During that time all the flowers seemed to be a failure—did not secrete any honey. My stock has run down to two or three colonies. I would like to know why it is that some years one or two of the colonies do all the increasing for the apiary, and the others diminish more than they increase. And some of the bees that are the poorest honey-gatherers, and have the least honey to protect, will follow me a mile to get to sting me.

Mr. Becker—Shall we offer a premium on bees that will follow a man a mile to sting him? I think we ought to encourage a stock of bees that are docile.

Mr. Black—I think my bees that are the most gentle gather the most honey.

Mr. Chaney—I think the committee ought to encourage premiums on none but Italians. About all the bees in our part of the State that have survived the poor years have been Italians, or crost with the same.

The following resolution presented by Mr. Black, was adopted:

Resolved, By the Illinois State Bee-Keepers' Association, that we ask that House Bill 192, entitled "An Act to provide against the adulteration of food and drugs, and the manufacture and sale of either food or drugs from imperfectly developt or damaged materials as standard articles," be enacted into a law; believing that the enactment will be for the best interest of the State.

It was voted that the Secretary be authorized to present a copy of this resolution to the member who offered the Bill, and to the chairman of the committees before whom it may come.

Mr. Chaney read a letter from a friend in Missouri, who wanted to know what killed his bees. He had fed them quite late in the fall, and they died in the winter with plenty of honey in their hives.

Mr. Robbins—I think that fall feeding is in danger of stimulating the queen to laying that is sure to cause a bad result.

Mr. Becker—I think the man named in the letter killed his bees by feeding. The feeding caused the bees to scatter to get the honey as they wanted it for use, and gather in small groups, and in this condition the cold caught and killed them.

Mr. Black—I have had loss of bees that were late fed, and I think it was because the honey was not properly cured,

(Concluded next week.)

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Mating and Laying of Young Queens.

How soon after a swarm issues will the young queen left in the old colony be mated and laying? P. K.

Answer.—Somewhere in the neighborhood of 16 to 18 days. Sometimes the issuing of the prime swarm is delayed by bad weather, and in that case the time may be considerably shortened. It may also be a good deal lengthened in case the swarm issues with no queen-cell present, or with those but slightly advanced.

Dead Bees in Combs, Etc.

1. In looking over my bees to-day, I found one colony that had a good many dead bees in two combs. The bees crawled into the combs and died, and are still there. Now will the bees take out those dead ones? The colony is quite strong in bees now, and they are just beginning to fly some every day now. They have plenty of stores.

2. I should think I took out one quart of dead bees. What do you think made so many die in that colony, and not any of any account in the other near it? They were all in chaff hives on the summer stands. Concord, N. H.

Answers.—1. A good colony of bees will make sure work of cleaning all dead bees out of combs. If, however, you have a comb full of dead bees that happens not to be in care of the bees, you may be able to have the dead bees cleaned out by leaving the comb where mice can get to it, only see that they don't carry their work too far and tear down the comb. If kept in a place very dry, the bees may largely be shaken out of the cells.

2. There is nothing alarming in the case. One colony may show more dead bees than another because having more old bees. One queen may stop laying earlier than another, thus making a larger proportion of old bees. Sometimes you'll find twice as many dead bees in one hive as another, when the real loss in each has been the same. For some reason one colony has cleaned out all the dead bees, and the other has left them mostly lying on the floor of the hive.

Wants to Prevent Swarming.

I have 23 colonies. Previously they have been at my father's, but I wish to take care of them myself this year. I would like to keep them from swarming, and have not time or strength to look them over enough to keep the queen-cells cut off; and I can only keep about 25 colonies, as I have not room for more than that at a convenient distance from the house.

1. Will it do to give them plenty of super room, put on zinc honey-boards, and fasten strips of queen-excluding zinc over the entrance, until after the swarming season is over?

2. In case the laying queen was killed how long would I have to leave the zinc off the entrance for the new queen to fly? And how long would it defer brood-rearing?

3. How often would I have to examine the brood-frames in order to tell whether the fertile or a young queen is left?

I would consider it a favor if you will answer these questions direct to me instead of through the Bee Journal, as I wish to know at your earliest convenience. Olmsted Co., Minn.

Answers.—One of the discomforts of my life is to get a letter with a postage stamp in it. Whenever I get one of that kind I know it contains questions about bees, with a request to send the answers by private letter. And it is simply impossible for me to comply, altho it may look to the sender that I am very unaccommodating. If I should answer one I should answer all, and my time would be largely taken up in that way. To refuse an answer in a single case may seem hardly the right thing, but when it comes to taking up in that way an entire day or two each week, it's somewhat different. I'm not a gentleman of leisure, but am kept very busy with the work of three apiaries and more side-shows than I can well manage.

Please send all the questions about bees you like, and I'll do my best to answer so far as I know enough, but *always name the paper* for which I write, in which you want to see replies.

1. The shortest answer is that it won't work. At least I have failed to make anything of the kind work satisfactorily. One trouble is, that at the time of swarming queens will get through the perforated zinc, and off goes a swarm. Yes, I know that it's generally considered that a queen cannot get through perforated zinc, but you let them get the swarming craze, and you may find out differently. At no other time perhaps will the queen-excluder fail, for at no other time will the queen make such desperate attempts to get through. Another trouble is that half a dozen swarms will get into one huge cluster, hang for hours and sulk, then perhaps all go into one hive, unless indeed some virgin queen gets into the lot and goes off with them. It's barely possible you may find it to work differently with you; but what I have mentioned is about the way with me.

2. You may count that the laying queen would be killed, with rare exceptions. It isn't a question how long you could leave off the zinc, for whenever you find it safe to leave it off for a day, you may feel safe in leaving it off altogether. It will not do to leave off the zinc till all the queens but one are killed. Then you can leave it off altogether.

3. It will hardly be necessary to examine them at all. If the old queen is still in the hive after the time she wants to swarm out, she will probably not lay an egg, so looking for brood wouldn't tell much. But you may count pretty certainly, without looking at a comb, that the old queen will be disposed of in about a week after first trying to swarm. Then there will be a high time among the young queens that are left, and if none of them succeed in getting out it will be some time before the number will be reduced to a single one, and in the meantime the colony will be badly disturbed.

Colonies Infested with Wax-Worms.

1. I have 17 colonies of bees, of which 4 or 5 colonies have a worm or a grub, as you may call it. This worm is from ½ to ¾ of an inch long, and entirely sealed over. What do you call it?

2. How does it get into the hive?

3. How long is it in the hive before injuring the bees?

4. How can I get rid of it, and keep clear of it?

A Reader, Sanilac Co., Mich.

Answers.—Before I forget it, I want to mention that you are making a mistake in not having a good text-book on bees and reading it over so as to be thoroughly familiar with it. That would give a full answer to the question you have askt, and a thousand others, and you wouldn't take many times the price of the book for what you would learn from it.

1. It is the wax-worm, the larva of the bee-moth—galleria cereana.

2. The moth lays its eggs in the hive on the combs or in the cracks about the hive, and from these eggs come the larvæ.

3. It commences its injurious work just as soon as it is hatcht from the egg, for it eats the wax, but its work of destruction increases with its size. In warm weather three or four weeks are necessary for full growth, but in cool weather the change is more slow.

4. The best thing is to have strong colonies of Italian bees. With such you need pay no attention to the worms. Even a weak colony of Italians will keep their combs clear of worms, and a strong colony of blacks will hold its own pretty well. But a weak colony of blacks will often succumb to the worms.

Moldy Combs—Feeding Sugar Syrup—Feeding Outside.

1. I have a few hives from which the bees died this winter. The combs are some moldy at the bottom, and almost half of the cells are filled with dead bees. How can I get them out, or will the bees clean them out when I put a swarm in them?

2. When feeding bees sugar syrup, can it be put into sections and laid in the supers?

3. How far from the apiary need I put the feed for bees, and be sure they will not start robbing, if I should feed outside?

C. B.

Answers.—1. The bees will clean them out, as you will see by answer to the question from "Concord, N. H." But if you wait to give them to a swarm, they may be getting more moldy, and if they're too bad a swarm will desert. Better put them in the care of bees as soon as you can. You can give one or two to a colony, or perhaps a better way will be to put the hive containing them under another hive containing a good colony. If you close up the upper entrance so the bees can get in and out only by going through the hive that contains the dirty combs, you'll make a sure thing of it; but they'll be likely to do fair work even if there should be an entrance higher up.

2. Possibly it might be done, but it would be a very troublesome way. If you want to feed in the hive and haven't any feeders, try the crock-and-plate plan. Fill a crock or other vessel half full of granulated sugar, or put in a less amount if you like. Add as many pints of water as you had of sugar. Lay over the crock two thicknesses of woolen cloth or five or six of cheese-cloth, and put over this a plate upside down. Put one hand under the crock and the other over the plate, and quickly turn the whole upside down. Set it on the top of the brood-frames, and set an empty hive-body or super over, covering up so no bees can get in from outside. Of course the bees must have free access from below.

3. Sugar syrup isn't as bad as honey to start robbing. You can put it within a rod of the hives, and perhaps there might be no trouble if nearer.

Placing Bees Near a Line Fence—Selling Comb Honey.

1. Is there any law prohibiting a man from keeping bees on his own ground? or how far must they be kept from the line of your neighbor, if he objects?

2. I still have about 450 pounds of honey on-hand. What is it worth? Mine is all white clover honey. I like the Bee Journal, and do not know how I could get along without it.

G. W. K.

Answers.—1. Each State has its own laws, and I doubt whether your State (Iowa) has any specific law on the subject. It's a question, however, to ask of some lawyer or justice who has a copy of the State laws. The peculiar circumstances of each case have much to do in deciding what is right. In some cases you might make trouble by having your bees quite a distance from your neighbor's line, while in others there might be no trouble with the bees upon the line. Try to think what *you* would want done if you were in his place. If his dwelling is close to the line, better keep the bees as far away as you can conveniently, perhaps two rods or so. With a close board fence six feet high, there ought to be no trouble right close to the line.

2. Look at the market quotations that appear weekly in the American Bee Journal, and you'll find out the prices in several of the leading cities. If you can sell at home for considerable less, that will be your best plan. Freight, commissions, etc., bring down prices when you ship away, besides the risk of a good deal of breakage. You will notice that prices are lower than last fall, and it is seldom a good plan to hold over comb honey from one season to the beginning of the next.

The Alsike Clover Leaflet consists of 2 pages, with illustrations, showing the value of Alsike clover, and telling how to grow it. This Leaflet is just the thing to hand to every farmer in your neighborhood. Send to the Bee Journal office for a quantity of them, and see that they are distributed where they will do the most good. Prices, postpaid, are as follows: 50 for 20 cents; 100 for 35 cents; or 200 for 60 cents.

White Clover Seed.—We have quite a quantity of White Clover Seed on hand that we will send you at a bargain. A little of it goes a good ways. It usually retails at 25 or 30 cents per pound, but we will *mail* you 2 pounds for 40 cents, or for sending us *one new* subscriber to the American Bee Journal for a year.

Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offer on page 268.

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Editorial Comments.

Comb Honey Cleaned Up.—Messrs. R. A. Burnett & Co., the leading Chicago honey-commission dealers, in a communication to us dated April 22, said this concerning the condition of the honey market in this city:

> Editor American Bee Journal:—The comb honey has cleaned up well this month, so that the best grade of white brings 13 cents, and there is no surplus of it. A few lots of dark and candied comb remain, but they are insignificant. Thus the season ends with a cleaned-up market for the product of 1897.
>
> The extracted product has been less fortunate, but there is not an excessive amount in sight. R. A. Burnett.

Bee-keepers will be glad to know the above, for it is a good condition of affairs, and will give the 1897 crop a fair chance.

But, look here: Don't rush a whole lot of the first honey taken this year, into the hands of some new and irresponsible commission firm, and let them sell it at a sacrificing price, thus ruining the market for the rest of the year, as did Bartling & Co. last year. They received about a carload of fine white comb honey early last year, and offered it at 10 cents a pound! Of course, that just knockt out the good prices that they and other dealers might have obtained if they hadn't been in such a hurry to sell, and defraud the shipper. By the way, that case is not settled yet, and Bartling is a member of the present Illinois House of Representatives!

We hope this year bee-keepers will be more careful, and patronize only those firms who are known to be honest and upright in their dealing.

◆

A Genuine "Volunteer" for the New Union is found in the person of Wm. Elliott, of Wabasha Co., Minn. When sending in his membership fee of $1.00, he wrote the Secretary, Dr. Mason:

> If at any time you want more money to carry on the business, you can draw on me for $5.00. I will be glad to help drive the swindlers out. I have 125 colonies of bees, and live on a farm. Wm. Elliott.

When Dr. Mason reported the above to us, he added this:

"That's the talk! Can't you send Mr. Secor and me the names of 1,000 such bee-keepers? Honey-dealers, commission men and consumers could be included."

"Oh for a thousand tongues to sing"—a tune like that of Mr. Elliott's! And there *ought* easily to be 1,000 bee-keepers sufficiently interested in the success of the pursuit of bee-keeping to say and do just what Mr. E. said and did.

Let every "volunteer" send his or her membership dues of $1.00 to Dr. A. B. Mason, Station B, Toledo, Ohio, who will return a receipt therefor, and see that the dollar is put into the fund and your name added to the honorable roll.

◆

To Wisconsin Bee-Keepers.—Mr. N. E. France, who has done so much for Wisconsin bee-keepers the past two years, and especially during the last few months, is not receiving the encouragement from the bee-keepers of that State that is due him. We learn this not from Mr. France himself, but from another prominent bee-keeper. Mr. France knows nothing about the appearance of this item at all.

So that those most interested may know the facts, we wish to say that Mr. France, before the Legislature was called in February, had received pleading letters from over 600 Wisconsin bee-keepers, asking him to assist them in getting past the foul brood law, and to have sweet clover removed from the noxious weed list. This Mr. France succeeded in doing, after spending the greater part of two months in the effort, besides carfare to and from Madison. In all, he advanced, out of his own pocket, nearly $40, saying nothing about the time he put in.

Now it does seem to us that Wisconsin bee-keepers owe it to themselves, as well as to Mr. France, to see to it at once that he is reimburst, at least for the amount of cash he has paid out in their interest. Since our last appeal, we understand that only *one* of all the many bee-keepers of that great State has sent in his membership fee of 50 cents! We are surprised at such apathy and slowness on the part of Wisconsin bee-men to do their clear duty. We trust that several hundred will immediately, after reading this, send to Mr. N. E. France (at Platteville, Wis.) their dues of 50 cents each, and become members of the State Association.

◆

The Tennessee Centennial and International Exposition, to be held in Nashville May 1 to Nov. 1, 1897, has issued a premium list for its Agricultural Department, a copy of which is on our desk. We notice the following awards under the head of "Apiary:"

Best 10 pounds or more of comb honey in most marketable shape	$10 00	$5 00
Best 10 pounds extracted honey in most marketable shape	10 00	5 00
Best 10 pounds of beeswax	10 00	5 00
Best bee-hive for comb honey	Diploma.	
Best bee-hive for extracted honey	Diploma.	
Best honey-extractor	Diploma.	
Best wax-extractor	Diploma.	
Best sample of comb foundation	Diploma.	
Best display apiarian tools and fixtures	Diploma.	

Well, that's just $45 ahead of the cash premiums offered at the World's Fair in 1893. Good for Tennessee. But the Illinois State Fair this year offers over ten times as much for its apiarian display. We fear many bee-keepers will think it will hardly pay to make the effort to put up a good display. But doubtless Southern bee-keepers will come to the rescue, even if there isn't much more than glory in it for them.

We have not as yet learned who is to be the judge in the apiarian department. Tho we have not been askt to suggest any one, we make no charge for offering the name of Dr. J. P. H. Brown, of Atlanta, Ga., for favorable consideration. He knows how.

◆

Shipping to Commission Firms.—It is surprising to note the lack of business sense—or even common sense—on the part of many shippers of farm products. How often is a lot of goods sent to a commission firm without the producer having first written to see whether the stuff is wanted; or, often shipments are sent without learning in advance anything about the responsibility of the commission firm. Now, no one can afford to do business in that way—it gives the criminally-inclined dealer too good an opportunity to fill his pockets at the expense of the overtrustful shipper.

Right along this line, we find in last Gleanings these two paragraphs, which we commend to those who contemplate shipping to commission dealers:

"A few days ago we received what we *thought* was quite a bad complaint against one of the firms that furnish quotations for Gleanings. On referring it to the firm in question we learned that the bee-keeper had sent the honey without orders, as well as some other produce; and the firm wrote us that, if their patron had simply askt for instructions, they would have advised him to hold his produce until they could have found for him a customer in his own vicinity. But, no; our friend, without orders, shipt the produce to the city, at a distance from his own home, where the goods (apples in this case) were a drug on the market, and were actually being dumpt by the hundred bushels because there was no sale.

ADVICE.—"Do not trust unknown firms, even if they do furnish good references. Write to the references first; and, while you are about it, write to us, too, for we are on the track of nearly all the honey-firms. Second, do not ship your honey or anything else without first receiving orders from the commission house."

Better read the above "Advice" again, and try to remember it. You can write to us at any time for information concerning any commission firm. But members of the New Union should write the General Manager, Hon. Eugene Secor, at Forest City, Iowa, who will be glad to furnish reliable ratings of any firm askt about. If you are not a member, just send the fee of $1.00 along with your request, and that will entitle you to all the benefits provided for in the Constitution of the New Union.

The Weekly Budget.

MR. J. C. STEWART, of Nodaway Co., Mo., wrote us April 16: "Bees have five frames of brood per colony. I lost one colony in 100, in chaff hives."

REV. E. T. ABBOTT will hereafter have charge of the monthly Nebraska Bee-Keeper. So says ex-Editor Stilson in the April number. Mr. Abbott will likely make things "hum"—suggestive of the bee-hive.

MR. C. G. LEIGHTON, of Uvalde Co., Tex., when sending for a missing copy of the Bee Journal, said: "Why, I'd rather do without my dinner than the 'Old Reliable.'" We are glad to know that the Bee Journal satisfies bodily hunger!

THE NORTHWESTERN AGRICULTURIST, for April, contains an illustrated symposium on bees. This is something new for a farm paper. Mrs. Effie Brown is the alert editor of the bee-department of that excellent paper, and no doubt it was she who "put them up to it." Good thing. Other agricultural papers would do well to follow the example of the Northwestern.

MR. M. H. MENDLESON—one of the large bee-keepers of California—"plants roses amongst the hives; being an enthusiast in rose-culture, he has nearly 100 varieties to greet him with their beauty and fragrance. In an apiary with such surroundings it is a real pleasure to work, and the mind is expanded by holding communion with things of beauty." So reports the Rural Californian.

THE NATIONAL STOCKMAN AND FARMER is one of the best agricultural periodicals that make their weekly visits to our office. But in addition to its heretofore excellent contents, it now presents the finest appearance of all the strictly farm weeklies that we are acquainted with. It began its 21st volume April 15, by changing its form into more of a magazine style, and added a beautiful cover, making 36 pages in all, 9x13 inches in size. Dr. Miller has had charge of the apiarian department of the paper for several years, and will continue to do his part to maintain the high standard which the National Stockman and Farmer has achieved.

MR. J. VAN DEUSEN, of Sprout Brook, N. Y.—the senior member of the firm of J. Van Deusen & Son—died March 28. He was a fine old gentleman, over 80 years of age, we believe. We had the pleasure of meeting him at several national bee-conventions. His son, J. A. Van Deusen, will continue the flat-bottom comb-foundation business. We hope soon to be permitted to publish a biographical sketch of Mr. Van Deusen, with picture.

MR. W. H. COVINGTON, of Mexico, offers for sale this week, in the advertising columns, his home in Mexico. He considers it a fine opening for any man with a small family. Wax sells there at 50 cents per pound, and extracted honey at 10 to 12 cents. From the fruit alone on his place he says he should realize $250 to $300 this year, and his bees are doing well. Better write him at once if you want a home in one of "the Italies of America."

DEMOREST'S MAGAZINE FOR MAY contains nearly 200 graphic illustrations, and there is not a dull page in it. "McKinley's Administration, Told by the Camera," is alone well worth the price of the magazine. Among the contributions are these: "Some Constantinople Types," "Women of the Administration," "The Proper Use of Wealth," "The Recuperative Forces of Spring," and "The California Poppy in Embroidery." Publisht in New York City.

MR. CHAS. A. GOODELL, of Blue Earth Co., Minn., was born in St. Lawrence Co., N. Y., in 1856, and went to Minnesota 21 years ago. He has been in the bee-business for the past 15 years, and also has a large berry plat, has always been a very successful man in the business, and considers it a profitable one. Last year he had 4,025 pounds of comb honey and 1,400 pounds of extracted, from 98 colonies.

Mr. Goodell has sent us photographs of his apiary and crop of comb honey harvested last year. He got his first swarm in the woods by lining them. Those he lost in wintering. Then he bought two colonies, and lost them by screening the entrances. He afterward got more bees, sent for the American Bee Journal, and then he says his success began. In the last three years he has sold 10,025 pounds of comb honey, and 3,000 pounds of extracted, besides thousands of quarts of berries.

MRS. A. L. AMOS, of Custer Co., Nebr., who was at the Lincoln convention, sends us these kindly words about Mrs. J. N. Heater and Mrs. A. L. Hallenbeck—two beloved Nebraska women and bee-keepers:

EDITOR YORK:—It was with deep regret that I read of the death of Mrs. Heater, and reading the particulars makes the event seem sadder than ever. Snatcht away from her busy life and an appreciative circle of friends, almost as suddenly and quite as unexpectedly as was Mrs. Hallenbeck a few months ago, she leaves a blank that will not be readily filled.

I did not come into such close association with Mrs. Heater at the convention as I did with Mrs. Hallenbeck, but I felt that she was a woman to be admired, and that I would like to know her, and perhaps would some day.

It is to be expected that the loss of these noble women will be felt most here in Nebraska, where they have lived and labored, but the bond that unites all kindred souls—the bond of human brotherhood—is independent of State lines, and we know that we are not alone in our sorrow.

The world cannot but sorrow over the passing away of people who are like the poet's friend, so touchingly memorialized in the lines—

"None knew thee but to love thee,
None named thee but to praise."

(MRS.) A. L. AMOS.

Through the kindness of Mrs. Amos we learn that the large family of children left by Mrs. Hallenbeck are to be well taken care of by kindly relatives. The children range in ages from 20 down to 3½ years. Mrs. H. had been left a widow but a short time before her death, and as the children were thus left orphans, it was thought best that their relatives should help in caring for them, by distributing them around. It is sad thus to separate a loving family, but no doubt it was best so to do. We hope that all those children may grow up to be useful members of society, and an honor to their devoted parents who were called away when their care was needed so much.

◆

Now is the Time to work for new subscribers Why not take advantage of the offer made on page 268?

General Items.

Prospect for a Big Yield.

I put into winter quarters 13 colonies of bees, and took 12 out the middle of March, good and strong, and one queenless. My bees are working on box-elder, cottonwood, and elm. The prospect is good for another big yield of honey. I hope every reader of the "old reliable" American Bee Journal will have an old-time honey harvest.

J. H. Rupp.
Washington Co., Kans., April 19.

Two Poor Years for Honey.

I have had two bad years, and no honey. My bees have not wintered very well, owing to the bad winter and scarcity of honey.

Moses A. Gebhart.
Newcastle Co., Del., April 13.

Prospects are Good.

My bees came through the winter in good condition, with a loss of three colonies out of 100. White clover looks well, and the prospect is good.

I have been putting foundation into sections with a machine invented by R. C. Aikin. A lamp heats a plate to melt the edge of the foundation, and stick it to the section, then the section is folded without removing from the machine.

Another term of court has past, and my bee-lawsuit was not brought up. It was continued.

J. L. Strong.
Page Co., Iowa, April 19.

Mrs. J. N. Heater.

It is with sorrow that I read the sad message announcing the departure of our beloved friend, Mrs. J. N. Heater, to that long home towards which we are all traveling. Death is an unwelcome visitor at any time, but when the grim messenger calls for those that are near and dear to us, in their prime of life, it makes our sorrows seem impossible to bear. But if we emmulate the virtues of our dear, departed friend, we may again meet and greet her. I had the pleasure of her acquaintance at the World's Fair, and I can vividly recall her cheerful, smiling, happy features as I graspt her hand of friendship. Love and charity filled her heart, and shone in her countenance. No one could long remain sad in her presence. I deeply sympathize with our friend, Mr. Heater, for to be blest with such a helpmate through this life of love, joy and sorrow, must be an attainment of that blissful happiness that but few realize here below.

E. S. Lovesy.

Prefers the Single-Walled Hive.

As I have noticed quite a little in the bee-papers this winter about wintering bees in single-walled hives, on their summer stands, I thought I would tell how I succeeded with my bees the past winter.

In the spring of 1895 I bought my first colony of bees, and at the end of the season I had increast to 3 colonies. Two of these went through the winter in double-walled chaff hives, while the third was in a 10-frame dovetailed hive. As the bees in the single-walled hive came through equally as well as those in the chaff hives, I decided to use only the dovetailed hive in the future, and accordingly last summer transferred all my colonies to 8-frame dovetailed hives. This with my increase gave me five strong colonies.

I fixt my bees for wintering last fall as follows: I left each hive with six frames well filled with honey, which equaled about 30 pounds to a colony. I pusht the frames well together, put in the division-board, put on a super, laid three sticks across the frames so as to give the bees a chance to go from one frame to another in cold

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that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polisht on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equipt with best machinery, all combine to enable this firm to furnish the

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Send for Circular and see the Prices on a Full Line of Supplies.

Please mention the American Bee Journal. 7Atf

That Queen-Clipping Device Free !

Works Like a Charm.

The Monette Queen-Clipping Device works like a charm. With it I have clipped 30 queens, all in one day, when examining my bees. Wm. Stolley, Grand Island, Nebr.

Couldn't Do Without It.

I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now.

Dr. Geo. Lacke, Newburgh, Ind.

PLEASE READ THIS OFFER TO PRESENT SUBSCRIBERS :

Send us *just one new name* for the American Bee Journal a year (with $1.00), and we will mail you the Queen-Clipping Device free of charge. Or, the Queen-Clipping Device will be sent postpaid for 30 cts. But why not get it as a Premium by the above offer? You can't earn 30 cts. any easier. Almost every bee-keeper will want this Device.

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The Honey that Suits All Who Buy It.

Low Prices Now !

We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 7½ cents per pound; 2 cans in one case, 7 cents; 4 cans (2 cases) or more, 6½ cents. The Cash must accompany each order. **Fine Basswood** Flavor Honey at same price; also in 270-lb. barrels.

☞ A sample of either honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

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weather, put over this a piece of heavy carpet cut so as to fit snugly in the super, and filled the super with dry leaves. The hives themselves were raised at the back on blocks. I took the covers off the hives whenever a warm day came, so as to air the leaves, as they were sometimes quite wet. My bees are placed around my back yard near the west and north fence, and face the grass plat in the middle of the yard. The fence acts as a shelter in winter, and this position also gives them all a southern exposure. I use old, Muth jar cases laid on their sides for stands, and find they give a solid foundation for the hive.

To-day was very warm, and as the bees were working hard, bringing in pollen, I thought this a good time to inspect the hives. I examined the five colonies, and found, contrary to my expectations, that they had plenty of stores left from the winter, also plenty of bees, and the queens laying in good shape. There was quite a good deal of new honey in the cells, which I think they are getting from the maples and willows now in blossom.

I don't want any more chaff hives, as long as my bees continue to winter as well as above in the single-walled dovetailed hives; besides this, the chaff ones are very unhandy to move around, and to work with, besides costing just about twice as much as the single-walled ones.

W. G. HOLDING.

Hudson Co., N. J., March 23.

A Beginner in Louisiana.

I am a bee-keeper of two seasons, having started with 3 old box-hive colonies, but successfully increast to 24, all in frame hives. I can't, in my experience and opinion, but see and read with regret of the failures of honey crops and dwindling of colonies, as reported by some correspondents, and assign their failures to climatic disadvantages only; and to back my assertions, I will say that last summer we had the longest drouth ever known here—no rain from April 13 until September; with what effect Northern bee-keepers would have stood such a continued drouth I can't tell, but will say to them that my bees got honey, and plenty of it. I had on every colony 2 supers, and on some 3 and 4, and full. I should say so—every super full to the last cell.

We do not know how to winter bees here. They stay on the stands the same as in summer, and now every hive is crowded to its utmost with bees. I took the first swarm March 23, and 4 since—and such swarms as would do you good to look at, and have them, too. How is this for a beginner—and a crop of honey in a dry season?

I handle so far none except the common, native bees. I have tried to Italianize, but met with no success; I suppose lacking experience. I will increase this season to about 40 colonies, as that is about all I can handle, my time being taken up by my regular business.

H. SEELIG.

E. Carroll Co., La., March 31.

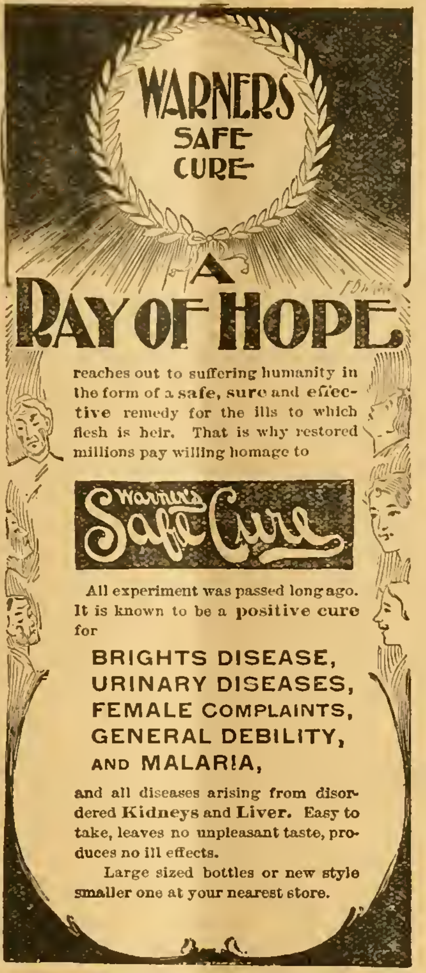
Painted vs. Unpainted Hives.

Sometime ago there was very much interest in the discussion of painted or unpainted hives for wintering bees, and the theory was laid down by some of our prominent bee-keepers that unpainted hives have the preference. This struck me as being the correct one, but I was not certain, but to-day I claim to be justified in saying that the painted hives are just as good for wintering bees in the cellar as an unpainted one, for experience has taught me so. Only this very winter, through which my bees have past, would be proof enough for my statement, as I have wintered 60 colonies with very little loss.

I put my bees into the cellar Nov. 7, and took them out March 28, this spring, the hives being about half painted and half unpainted. Some of the bees in the unpainted hives showed slight signs of dysentery, and so did some of those in the painted ones. Some of the bees in the colonies of the unpainted hives were perfectly healthy, and *vice versa*. So last winter's as well as previous winters' experience has proven that the cause of poor wintering is not to be lookt for in the painted or unpainted hive, but depends upon the size and shape of the hive, the size of the colony to be wintered, the food they have to live on, and the temperature and the darkness of the cellar. These are the main factors in successful wintering. A hive for good wintering must by all means be so constructed that if it becomes necessary for the bees to extend their cluster 4 or 5 inches below the frames on account of heat, they can do so, and if it becomes necessary for them to seek a warmer place than the temperature of the cellar affords them, they can find it in the upper part of the hive. With a hive so constructed, and with plenty of good honey in easy reach at all times, bees will winter well, other things, such as quietness, etc., being equal.

AUG. BARTZ.

Chippawa Co., Wis., April 15.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I defy competition in quality and workmanship. **Working Wax** into Foundation when sent to me, a specialty. Write, without fail, for Catalog. My prices are worth looking at. Wax wanted at 26c cash, or 29c in trade, delivered. August Weiss, Hortonville, Wis.

6A12t *Mention the American Bee Journal.*

Out-Door Wintering Experiments.

As a silent, yet a very much interested reader of the American Bee Journal, I sometimes think it almost a duty, as well as a pleasure, to write a few lines for others to read.

I have searcht in vain thus far for a report from those that were experimenting with the out-door system of wintering bees. While at the Chicago convention last fall, several exprest themselves as trying the experiment, by placing a mat or cushion on top of the hives, then placing a half-super filled with dry forest leaves thereon. Dr. Miller was one of them, and had prepared 10 colonies. Myself for another, with 17, and another man (I forgot his name) prepared his whole apiary this way, and had been very successful in so doing for several years.

My report as touching this matter is as follows: My bees wintered very well all around, while those wintered on the summer stands came out stronger in bees, yet very much lighter in stores than those wintered in the cellar; and my outside loss was only one colony out of the 17, and that died from starvation, and then the last of March. I have lost but two colonies out of 86, thus far, and nearly all are in fine condition.

Perhaps this may bring out other reports.

One word more about eggs, or queens laying after mating. On page 239, J. E. Pond says that eggs are found in cells six hours after mating. I am inclined to think if he had lookt around a little he would have found another hen on.

A. Y. BALDWIN.

DeKalb Co., Ill., April 17.

Taxing Bees in Wisconsin.

On page 167, among Dr. Miller's answers and questions, I see an item from H. C., of Clark Co., Wis. I am a resident of that county, and am a bee-keeper, too, and naturally feel interested in the matter of taxing bees. So far as this town is concerned, bees were not assest in 1896. The law reads that among the articles to be assest, all goods, wares, merchandise, chattles, moneys and effects of any nature or description having any real or marketable value, must be included, which, of course, covers the bees; but there are a few articles like notes, bonds, mortgages and other securities, that are also included, but not assest in this county. I do not wish to evade the payment of taxes, when properly imposed, but I would allow the tax on bees to be returned, unless the assessment was general in the county.

And then, the sum of $3.00 is out of all proportion to the way other personal property is assest, which is usually assest at one-third of its value.

The laws say that property should be assest at what it would bring at private sale, but it is not so assest in this county

BE CONVINCED, AND GET YOUR MONEY'S WORTH

We offer the **New Champion Doubled-Walled Chaff Hive**, made of the Best White Pine Lumber, from now until June 15, 1897, Complete and Painted, with Dovetail Body and Two Supers for Comb Honey or Extracting; 8, 9 or 10 frame hive, with Thick-Top, Self-Spacing Hoffman Frames, including 2 or 4 folded Tin Rabbets, Tin Cover and Double Bottom—all for only $1.50. The same in the Flat for 98 cents; and if Outside Summer and Winter Case is wanted only, complete and painted, to fit any Dovetail or Simplicity 8, 9 or 10 frame hive, for 93 cents; and the same in the Flat for 73 cents. Inside measurement of Case 25x20 inches, and 21 inches high. We solicit your orders.

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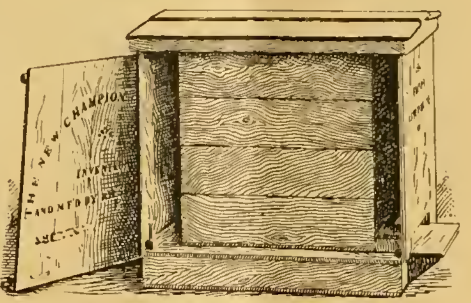

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Extracted Honey Wanted—Make Offers.

Queens and Queen-Rearing.—If you want to know how to have queens fertilized in upper stories while the old queen is still laying below; how you may *safely introduce* any queen, at any time of the year when bees can fly; all about the different races of bees; all about shipping queens, queen-cages, candy for queen-cages, etc.; all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know—send for Doolittle's "Scientific Queen-Rearing"—a book of over 170 pages, which is as interesting as a story. Here are some good offers of this book:

Bound in cloth, postpaid, $1.00; or clubbed with the BEE JOURNAL for one year—both for only $1.75; or given free as a premium for sending us *two* new subscribers to the BEE JOURNAL for a year at $1.00 each.

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The Bee-Keeper's Guide

OR

MANUAL OF THE APIARY.

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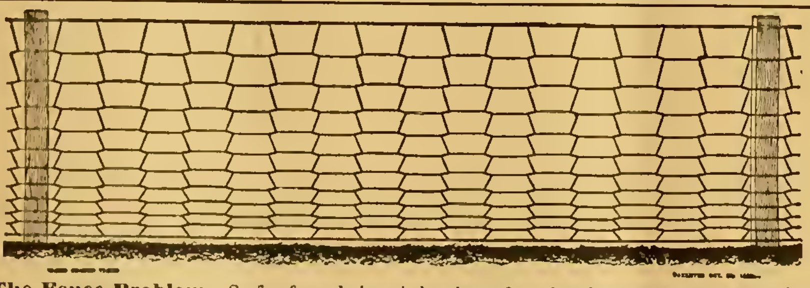
GEORGE W. YORK & CO., 118 Michigan St., Chicago, Ill.



The Fence Problem.—So far from being settled in any definite way, the question of fencing is more of a problem today than ever. This is largely due to the fact that the demand, or at least the needs, of fencing are increasing, and are likely to continue to do so for years to come. As the country becomes more thickly settled and new land is brought under cultivation, or the old farms are subdivided and cut up into smaller ones, the demand for fencing of some kind will continue to increase. This being true, the problem then resolves itself into one of selection. Wood, the natural material for fencing, has already become scarce enough and high enough in price to place it beyond the means of the average farmer, and he is a rich man indeed who, at the present price of timber, can continue its use for this purpose. A knowledge of these facts, coupled with the consequent saving in labor, land and money, were the prime factors in the development of the wire-fence industry, which has grown to such immense proportions. The original wire fence, which was made of barbed wire, has been found to be inefficient, harmful, and objectionable. It has consequently been supplanted by the modern woven-wire fence, which is more desirable in every way.

The prime object and essential of fencing of any kind is the prevention of tresspass; to keep one farmer's stock from trespassing upon the lands of his neighbor, and vice versa; to keep stock from trespasing upon the highway, and to keep them confined within a given enclosure. It must be constructed, therefore, that it will turn all kinds of animals without injury; must not harbor weeds; must not unnecessarily encumber or take up too much room, thereby wasting land and in general must be handsome, durable, lasting, and provided at reasonable cost.

What is said above is true in every way of the Keystone Woven Wire Fence, manufactured by the company of that name at Peoria, Ill., a sectional view of whose fence is shown here. Write them for their book on Fencing, stating that you read this in the American Bee Journal.

so we ought not to have the bees assest different from other property. Bees can be bought, and have been bought, for from $2.50 to $5.00 per colony. Five dollars is the maximum price.

The Town Board of Review would have changed those figures, I think, if H. C. had met with the Board last June.

Clark Co., Wis. L. M. WILLIS.

Big Honey-Flow Expected.

Bees are in fine condition this spring, and prospects are good for a big honey-flow this year. F. J. R. DAVENPORT.

Ellis Co., Tex., April 20.

Good Season Lookt For.

My bees have begun to swarm, and they are all boiling over with bees. So I look sor a good season. I lost only one colony out of 60. J. A. SHONE.

Benton Co., Miss., April 13.

Prospect for a Good Season.

My age and bodily infirmity compel me to abstain from all manual labor, and I intend to devote my few remaining years to the honey-bee. My bees were taken from the cellar March 31, and were found strong and healthy; no loss. We have had a number of warm days since putting them out, and they have had a good flight. The prospect is good for a good honey season.

S. B. SMITH.

Stevens Co., Minn., April 12.

Poorest Season in 20 Years.

The season of 1896 was the poorest we have had here in 20 years. From 45 colonies I never got a swarm nor a pound of marketable honey. The outlook now is anything but promising for the coming summer. It rains nearly all the time, with a cold wave for a change. I am feeding my bees sugar syrup now.

I admire the bold stand Editor York has taken against the commission swindlers and adulterators. ISAAC BROWN.

Grundy Co., Tenn., April 12.

An Old Man's Experience.

I am an old hand with bees, it being just 75 years last May since I made my first experiment with them. Wishing to find out how many there were in an old straw skep, I poked a stick into the entrance. I never tried it that way again.

I have been a subscriber to the American Bee Journal six or eight yeers; have kept bees that long, where the winter is one-half of the year, and the mercury is frozen a month at a time. I knew from long experience in the northern woods that the only problem before me was wintering. When I got ready to keep bees, I began by getting the best books and subscribing for the American Bee Journal. I intended to make my hives at home, as I had an engine and saws. I have spent a good deal of time and money experimenting, and have concluded that bee-keepers have a good many blind leaders of the blind amongst them.

I started to winter according to the books, and found that Prof. Cook's statement that a light colony would winter as well as a strong one was misleading, as the light one was no good the next summer, as the season was gone before they were strong enough to do anything. I found that Pierce's plan was the same as all the bee-keepers up here used, at a loss of between 40 to 100 per cent., no difference in cellars or out-doors.

I found that the worst stuff is printed about ventilation, and that four holes in zinc is enough for any colony of bees, and that if that entrance is exposed to the wind when cold and light snow is falling, the hive will fill entirely full of snow all around the cluster. I found that you cannot smother a colony of bees with snow; that

"Queens Given Away."

Gray Carniolans and Golden Italians.

We will give a fine Tested Queen (either race) to all customers ordering 6 Untested Queens, and a fine Select Tested Queen to all who order 12 Untested Queens at one time. The Queens given away will be sent to customers in August.

Grade and Prices of Bees and Queens	April May June	July Aug. Sept.
Untested Queen	$ .75	$ .65
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Two " " "	1.50	1.00
Full Colony of Bees " (in new dovetailed hive)	5.00	4.00

We **guarantee** our Bees to be free from all diseases, and to give entire satisfaction. **Descriptive Price-List Free.**

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GEO. E. HILTON,

9D9t **FREMONT, MICH.**

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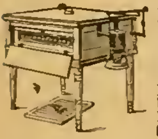

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That will keep Hen's Eggs perfectly through warm weather, just as good as fresh ones for cooking and frosting. One man paid 10 cents a dozen for the eggs he preserved, and then later sold them for 25 cents a dozen. You can preserve them for about **1 cent per dozen.** Now is the time to do it, while eggs are cheap.

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WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

Tested Italian Queens 90 cts. Warranted 75 cts. per return mail. Tested Queens were reared late last fall. I make Queen-rearing a specialty.

DANIEL WURTH,

15D4t FALMOUTH, Rush Co., IND.

Mention the American Bee Journal.

it made no difference whether a colony had any sealed honey or not when they have their last flight, for if they have enough honey and bees, they will seal it quick enough.

I found that the deeper the combs are the likelier the bees are to die, as they will go to the top of the combs as soon as it gets cold, then the honey will freeze outside, and become damp and moldy in cellars.

I got stirred up to write by reading in the report of the Illinois convention Dr. Miller's description of the plan he is trying to winter bees out-of-doors. His bees may live, but the combs will mold, and then have pickled brood. By the way, is not that what Mr. McEvoy has been curing for the Canucks? I know he is wrong in the assertion that chilled brood will produce foul brood, for there never has been a spring since anybody has kept bees up here, but they have all had plenty of chilled brood, as they nearly all winter bees in the cellar under the house, and put the bees out on benches two feet high the first days in spring warm enough for them to fly. But there never has been anything like foul brood here. Then how could foul brood be stampt out by even burning every colony, when there are hundreds of swarms that get away to the woods every season? I find that up here at least five out of six colonies of wild colonies die every winter, and sometimes nearly all. I believe young bees and plenty of them is the solution of the wintering problem, but no natural swarm or colony has ever young bees enough in the fall to winter to perfection north of the 40th parallel. R. DAVIDSON.

Burnett Co., Wis.

◆

Almost a Resurrection.

I hasten to tell my experience with a colony which, on removal from the cellar, appeared to be starved—absolutely no food left. Four combs were fairly filled with bees, but when moved they fell off, and very few seemed to move at all. Handling the frames very gingerly I sprinkled warm sugar water (1 to 2) over them, with a spoon, and the sun being warm, left the top of the hive with one water-proof quilt over the brood. In the evening they had revived a little, and clustered, and I hoped for the best. That night and all next day we had snow and rain, and I left them packt up as warm as possible, with a cake of candy over the cluster. The following morning not a bee on the candy—all apparently quite dead; not a wing moved; not a leg kickt. However, to have a final fight with Grim Death, I sprinkled more warm syrup on the dead cluster, and in the surrounding cells, and it being warm again, exposed them as before. That was four days ago; they revived and are gaining energy every day. It was quite a resurrection.

Moral—"Never say die."

May be this will be in time to save loss to some one else. W. R. A.

Ramsey Co., Minn., April 15.

◆

Proper Spacing of Brood-Frames.

Has the proper distance of brood-combs from center to center become an absolute certainty, *i. e.*, for the best welfare of the colony, taking the season through? The distance which brood-combs should be spaced from center to center has been demonstrated by actual measurements from combs in box-hives when the colony had their own sweet will as regards the spacing and laying the foundation, and it is found that 1½ inches is the distance in most cases. We have incidents whereby valuable inventions and improvements have been brought to light through chance or mistakes. Back in the '60's (if I remember correctly it was '64), by some mistake I had a colony of bees in a 10-frame Langstroth hive occupied by nine frames or combs; they were spaced accordingly in uniformity, making them 1⅝ from center to center. They were all worker-combs. This colony

✻ TO BE HUNG! ✻

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Golden Beauties, 3 Band Italians
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Address, **C. B. BANKSTON,**

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Mention the American Bee Journal.

SMOKERS and FOUNDATION

We do not catalog the Quinby or Hill Smokers this year, but there may be some who prefer these styles. We still have a few, and offer them at these special prices to close out:

The Quinby—2-inch barrel, single-blast, 35c.; postpaid, 50c. 2½-inch, double-blast, 60c.; postpaid, 75c.

The Hill—3-inch barrel, 40c.; postpaid, 60c.

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Early Italian Queens

Untested, 75c.; Tested, $1.25.
Nuclei, 2 frame, $2.00, including a good Queen.
Bees by the Pound.

E. L. CARRINGTON,

5A17t **De Funiak Springs, Fla.**

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Golden
Adel
Albino

Texas Queens!

Dr. Gallup says they are the best he has in his yard.

J. D. GIVENS, Lisbon, Tex.

Mention the Bee Journal. 9A26t,

ROOT'S GOODS. Get discounts on early orders for 1897. A. I. Root Co.'s Bee-Supplies always on hand. Better prepared than ever to fill orders promptly. 36-page Catalog free.

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BEES & NUCLEI.

We can supply Good Full Colonies of Italian Bees in 10-frame Langstroth hives, and 3-frame Nuclei. They are in Lee Co., Illinois. 100 miles from Chicago. If you wish to buy, write us at once, as to what and how many you want, and we will quote you price.

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For Sale, Bees & Queens

Bees by the Pound, $1.00. Queens. $1.00. Nuclei, 2-frame, with Queen, $2.50; 1-frame, $2.00. Also, **Barred & White Plymouth Rocks, and Silver-Laced Wyandottes Eggs** at $1.00 per sitting of 15. Address,

Mrs. A. A. SIMPSON,
16A13 SWARTS, GREENE CO., PA.
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Pet Stock and Incubators if conducted according to **"The Chautauqua Guide to Big Profits"** just out and sent postpaid with our 1897 Catalogue for 4c to help pay postage, etc. Best eggs and stock cost no more if purchased of us, you can then sell your product to us and thousands others for high fancy prices. We own 300 acres most elegantly adapted to poultry. **CHAUTAUQUA POULTRY & PET STOCK FARM,** Box 17 **KENNEDY, N.Y**
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For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 24 cents per pound, CASH; or 28 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly,** for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,

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A 2½-acre orange grove within the city limits of Montemorelas, Mexico; including an apiary of 35 colonies, and a flock of thoroughbred poultry; also present crop of fruit and vegetables. Place has a good house and is in first-class condition. Must sell on account of failure in health. Price. $700. Terms if necessary. For particulars write—

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17A4t MONTEMORELAS, N. L., MEXICO.
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13A13t Please mention the Bee Journal.

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Plants for sale cheap—Red and Black Raspberry, and Strawberry.

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OUR APAry is non-partisan and deals in strictly first class Italian Queens—Tested, 90c Untested, 65c. 1-fr. Nucleus, 65c.; 2-fr. $1.10 —discount on quantities. M. O. office, Sparta, Tenn **COOPER & GILLETT,**
17A4t QUEBECK, TENN.
Mention the American Bee Journal

proved to be the most valuable one in the whole yard of 200, producing comb honey to the value of $41 (at that time comb honey was secured in glass boxes). The bees of this colony were visibly longer-bodied, and had the appearance of being a stronger bee all around. Could it be because they had more space between combs, that the brood became more fully develvoped?

Having often thought of the workings of this particular colony, the idea never occurred to me that the nine frames in the space of ten had any bearing on the working qualities of the bees. Last season, having a similar case (a hive I bought being an 8-frame Langstroth occupied by seven frames), I began to reason that this matter of more space for brood-combs may be something that would be advisable to give an investigation, as the colony on seven frames, in an 8-frame hive, proved to do the best of any, in the yard of 33. Now, don't shake your head and say this is all bosh, as there are a great many things we don't know; but with the most of mankind, what they don't know would make the largest book.

I shall arrange five hives the coming season as stated above, and providing they come up to the standard of the two cases referred to, will give the result to the readers of the American Bee Journnl.

Douglas Co., Minn. M. S. SNOW.

Rearing Early Queens.

The sun set clear last night, and this is a beautiful morning. It begins to look like spring at last. It has been so wet that but little small grain is in, and farmers are very much behind with their work. In my observatory hive one queen hatcht out on the eve of the 11th, on time. The others were kept in until the morning of the 13th, and it was (to me) interesting to hear the piping and quabking going on all day Monday. I have wire screening next to the frames, and glass outside of that. By removing the glass I can tap on the screening and drive the bees where I choose (and occasionally get a dab through the wires). Yesterday morning they commenced to tear open the remaining queen-cells, and by sticking some pieces of broom-corn (taken from an old broom) through the screening, I made a corral for each cell, and then watcht the fun and saved my queens. I did not give one of them to the colony that had the laying worker, as I had intended to, for, upon examination, I found they had several queen-cells started, and more than that, not a single drone found his way back to the hive.

H. W. CONGDON.

Cass Co., Nebr., April 14.

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We have the **finest Lumber to be had** for

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all Second-Growth and White as Snow. We have all the **up-to-date machinery,** and are in a position to fill your order promptly and satisfactorily.

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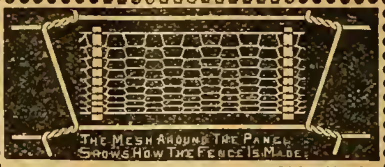
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On all Kinds of Supplies
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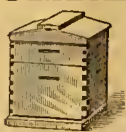

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HONEY and BEESWAX

MARKET QUOTATIONS.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

NO. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

Chicago, Ill., Mar. 19.—Fancy white, 11@12c.; No. 1, 10@11c.; fancy amber, 9c.; No. 1, 7c.; fancy dark, 8c.; No. 1, 7c. Extracted, white, 5@7c.; amber, 5@6c.; dark, 4½c. Beeswax, 25@27c.

Stocks are working down, but there is no improvement in price. The season for comb honey is drawing to a close. Any one intending to market in the cities should do so now.

Albany, N. Y., Mar. 20.—Fancy white, 12-13c.; No. 1, 11-12c.; fancy amber, 9-10c.; No. 1, 8-9c.; fancy dark, 7-8c.; No. 1, 6-7c. Extracted, white, 5-6c.; dark, 3½-4c.

Demand is all that could be expected at this season. Stock on hand small.

Indianapolis, Ind., Feb. 20.—Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Boston, Mass., Feb. 20.—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

St. Louis, Mo., Feb. 19.—Fancy comb, 12@@13c.; No. 1 white, 11@11½c.; amber, 9@10½c.; dark, 7@8½c. Extracted, white, in cans, 6@7c.; amber, in barrels, 4@4½c; extra, 5c.; dark, 3@4c. Good demand for barrel stock—comb slow sale. Beeswax, 23@23½c.—prime finds ready sale at 23½c.

San Francisco, Calif., Apr. 7.— White comb, 9-10c.; amber, 5-7c. Extracted, white, 5½c.; light amber, 3½-4c.; dark rule, 2¾c.

Beeswax, fair to choice, 24-26c.

Philadelphia, Pa., Feb. 2.—Fancy white comb, 12-13c ; fancy amber, 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3½-4c. Beeswax, 25c.

Season is getting over for comb honey—very little demand. Extracted in good demand.

New York, N. Y., Apr. 10.—White comb, 10@11c.; amber, 8@9c.; dark, 6c. Ther is a fairly good demand for comb honey yet, and it keeps coming in small lots. Extracted is quiet at unchanged prices. The demand for buckwheat extracted has ceast, and no more sale for it. Beeswax is quiet at 26@27c.

Detroit, Mich., Mar. 12.—No. 1 and fancy white comb, 11-12c.; other brands, 7-10c. Extracted, white, 5-6c.; amber and dark, 4-5c. Beeswax, 24-25c.

Kansas City, Mo., Apr. 19.—No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 9@10c.; No. 1 dark, 8@9c. Extracted, white, 5c.; amber, 4½c.; dark, 4c. Beeswax, 25c.

Cincinnati, Ohio, Apr. 19.—Demand is slow for all kinds of honey. Comb honey, 10@14c. for fair to choice white; extracted, 3½@6c. There is a fair demand for beeswax at 22@25c. for good to choice yellow.

Minneapolis, Minn., Feb. 20. — Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Buffalo, N. Y., Apr. 16. — Very fancy honey, mostly 10 and 11c.; fair to good, from 9c. down to 7 and 8c.; very poor, dark, etc., 5-7c. Very little, if any, extracted in the market to quote. Write us before shipping.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN,

Kansas City, Mo.
C. C. CLEMOMS & Co., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
WILLIAMS BROS., 80 & 82 Broadway.

St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.
S. H. HALL & CO.

Milwaukee, Wis.
A. V. BISHOP & Co.

Boston, Mass.
E. E. BLAKE & Co., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. MCCULLOCH & CO., 380 Broadway.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central Avs.

Honey - Clovers !

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
Alsike Clover........	.70	$1.25	$3.00	$5.75
Sweet Clover (white).	.70	1.20	2.50	4.75
White Clover...	.90	1.60	3.75	7.00
Alfalfa Clover.... ...	.60	1.00	2.25	4.00
Crimson Clover.......	.55	.90	2.00	3.50

Prices subject to market changes.

Add 25 cents to your order, for cartage, if wanted by freight.

Your orders are solicited.

GEORGE W. YORK & Co.
CHICAGO, ILL.

One Cent Invested in a postal card will get my large Catalog of All Root's Goods. Send list of what you want, and get price.
M. H. HUNT, Bell Branch, Mich.
WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

BEE-KEEPERS ! Let me send you my 64-page Catalog for 1897.
J. M. Jenkins, Wetumpka, Ala.
Mention the American Bee Journal.

PATENT WIRED COMB FOUNDATION
Has No Sag in Brood-Frames
Thin Flat-Bottom Foundation
Has No Fishbone in the Surplus Honey.
Being the cleanest is usually worked the quickest of any Foundation made
J. VAN DEUSEN & SONS,
Sole Manufacturers,
Sprout Brook Montgomery Co., N. Y.
Mention the American Bee Journal.

California

If you care to know of its Fruits, Flowers Climate or Resources, send for a Sample Copy of California's Favorite Paper—

The Pacific Rural Press

The leading Horticultural and Agricultural paper of the Pacific Coast. Published weekly, handsomely illustrated, $2.00 per annum. Sample Copy Free.

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✣ MONEY SAVED IS MONEY GAINED. ✣

THE ROYAL UNION
Life Insurance Company
DES MOINES, IOWA.

The Iowa Policy

Is one that definitely promises to keep an accurate account with you ; credit your premiums and interest, charge the actual expense and mortuary cost, and hold the remaining funds subject to your order.

Agents Wanted.

SECTIONS !

We have a lot of Sections 4¼x4¼x7 to-foot, which are off in color. We wish to close them out QUICK, so offer them at $1.50 a M. They are not seconds, but are off in color—open on two and three sides.

Cat. of Bees and Supplies Free.

I. J. STRINGHAM,
105 Park Place. NEW YORK, N. Y.
APIARY—Glen Cove, L. I.

EVAN'S Improved Machine for Sheeting Wax.

This machine produces a continuous sheet of uniform thickness and any width desired directly from the melted wax. No lapping or welding done in this proces. This machine is a rapid worker, simple in construction, easily operated either by hand or steam power, and price within reach of any supply dealer. Correspondence solicited. Sample sent on receipt of order and postage. Patent allowed March 18, 1897. THOS. EVANS, Lansing, Mich.

Mention the American Bee Journal.

Catalogs for 1897.—We have received the following Catalogs, Price-Lists, etc., a copy of which may be obtained upon application, always being careful to say you saw their advertisement in the American Bee Journal:

The W. T. Faconer Mfg. Co., Jamestown, N. Y.—Bee-Hives, Sections, and Bee-Keepers' Supplies.

Sidney A. Fisher, 82 Water St., Boston, Mass.—Apiarian Supplies.

Mrs. A. A. Simpson, Swarts, Pa.—Italian Queens and Bees, and Fancy Poultry.

Van Allen & Williams, Barnum, Wis.—Queens, Berry-Plants, and Reversible Extractors.

Wm. H. Bright, Mazeppa, Minn.—Bee-Keepers' Supplies.

Convention Notices.

Illinois.—The spring meeting of the Northern Illinois Bee-Keepers' Association will be held Tuesday, May 18, at the residence of H. W. Lee, at Pecatonica, Ill. All are cordially invited to attend. Means of conveyance will be at the station for the benefit of those coming on trains. B. KENNEDY, Sec.
New Milford, Ill.

Connecticut.—The 6th annual meeting of the Connecticut Bee-Keepers' Association will be held at the capitol at Hartford, May 5, at 10:30 a.m. Let all interested in bee-culture make an extra effort to be present.
Waterbury, Conn. MRS. W. E. RILEY, Sec.

FREE —A Copy of— Successful Bee-Keeping, by W. Z. Hutchinson; and our 1897 Catalog, for 2-cent stamp, or a copy of the **Catalog for the Asking.** We make almost **Everything** used by **Bee-Keepers**, and at **Lowest Prices.** OUR

Falcon Polisht Sections

are warranted

Superior to All Others.

Don't buy cheaply and roughly made Goods, when you can have **the best—such as we make.**

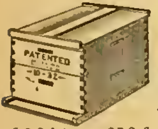
The American Bee-Keeper

[monthly, now in its 7th year]

36 Pages—50 Cents a Year.

SAMPLE FREE—ADDRESS,

THE W. T. FALCONER MFG. CO.,
JAMESTOWN, N. Y.



DANZENBAKER HIVE AND HONEY

won Highest Honors at the Fairs, and pays Premiums to purchasers

of 50 hives, $50 for the best 100 Danz. sections
" 25 " 25 " 50 " "
" 20 " 20 " 40 " "
" 10 " 10 " 20 " "
" 5 " 5 " 10 " "

☞ Further particulars regarding the premiums, also special catalog of the Danzenbaker Hive and System, furnisht on application. Address,

Francis Danzenbaker, Medina, Ohio.
Care The A. I. Root Company.

For Sale, Choice Italian Bees.

Full Colonies at $5.00; Nuclei, $1 per Frame.
—Queens in Their Season.—
Also a Full Stock of the
B. Taylor Handy BEE-KEEPERS' SUPPLIES.
Send for Catalog, to—
F. A. CROWELL, Granger, Minn.
17A4t Please mention the Bee Journal.

I ARISE

TO SAY to the readers of the **BEE JOURNAL** that **DOOLITTLE** has concluded to sell —BEES and QUEENS— in their season, during 1897, at the following prices:

One Colony of Italians on 9 Gallup frames, in light shipping-box	$6 00
Five Colonies.....	25 00
Ten Colonies......	45 00
1 untested queen.	1 00
6 " queens	5 50
12 " "	10 00
1 tested Queen...	$1 50
3 " Queens.	3 50
1 select tested queen	2 00
3 " " Queens	4 00
Select tested queen, previous season's rearing..	4 00
Extra Selected for breeding, THE VERY BEST..	5 00

About a Pound of BEES in a Two-frame Nucleus, with any Queen, $2.00 extra.

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☞ Circular free, giving full particulars regarding the Bees and each class of Queens.

Address

G. M. DOOLITTLE,
11A25t BORODINO, Onon. Co., N. Y.

BIG MONEY IN POULTRY

OUR LARGE GUIDE for '97 just out. Something entirely new. 100 pages. Printed in finest colored work. Contains everything pertaining to Poultry in full. **PRICES REDUCED** on 1st Prize Winners and Eggs. Postpaid on receipt of 15 cents, if you write now. JOHN BAUSCHER, Jr., Box 94 Freeport, Ill.
10A13t *Mention the American Bee Journal.*

20th Year **Dadant's Foundation** 20th Year

Why Does It Sell So Well?

Because it has always given better satisfaction than any other.

Because **IN 20 YEARS** there have not been any complaints, but thousand of compliments.

We Guarantee Satisfaction.

What more can anybody do? **Beauty, Purity, Firmness, No Sagging, No Loss. Patent Weed Process of Sheeting.**

Send Name for Our Catalog, Samples of Foundation and Veil Material. We sell the best Veils, cotton or silk.

Bee-Keepers' Supplies of All Kinds.

LANGSTROTH ON THE HONEY-BEE, Revised.
The Classic in Bee-Culture—Price, $1.25, by mail.

CHAS. DADANT & SON,
Please mention the Am. Bee Journal. **HAMILTON, Hancock Co., ILL.**

4¼ SECTIONS 4¼ SECTIONS

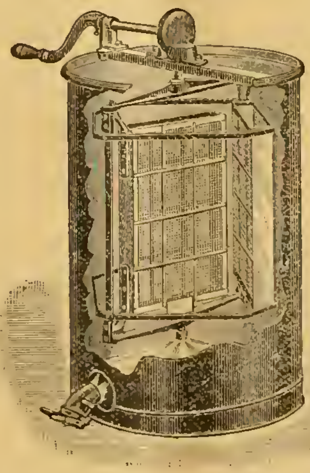
Our business is making Sections. We are located in the basswood belt of Wisconsin; therefore the material we use cannot be better. We have made the following prices:

No. 1 Snow-White.		**No. 1 Cream.**	
500 for	$1.25	500 for	$1.00
1000 for	2.50	1000 for	2.00
2000 for	4.75	2000 for	3.75
3000 for	6.75	3000 for	5.25

If larger quantities are wanted, write for prices.

Price-List of Sections, Foundations, Veils, Smokers, Zinc, Etc., Sent on application.

6A35t **MARSHFIELD MFG. CO., Marshfield, Wis.**



NOVICE AND COWAN EXTRACTORS.

More Popular Than Ever.

They are used by all leading bee-keepers. If you would get the latest and best, see that our name is on them.

Our 1897 Dove-tail'd Hives,

With **New 1897 End-Spacing Hoffman Frames**, are carrying the market by storm. Don't buy old-style goods, when new, up-to-date goods cost no more. **Catalog, explaining, sent for the asking.**

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Factory and Main Office, **MEDINA, O.**

BRANCH OFFICES:
118 Michigan St., Chicago, Ill. **Syracuse, N. Y.**
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10 Vine St., Philadelphia, Pa.

AMERICAN BEE JOURNAL

DEVOTED EXCLUSIVELY TO THE INTERESTS OF HONEY PRODUCERS

37th Year. CHICAGO, ILL., MAY 6, 1897. No. 18.

BIOGRAPHICAL

MRS. A. A. SIMPSON.

The subject of this sketch is a resident of Greene county, Pennsylvania. She began to keep bees in 1887—just 10 years ago—with 7 colonies of natives in box-hives. These she transferred to Simplicity hives, and then Italianized them. She has been very successful so far, and now has 60 colonies in chaff hives.

Mrs. Simpson commenced to ship bees and queens in 1889. She says it took her a whole season to learn how to rear queens, after reading all she could find on the subject; and that one must have experience to know how to manage bees.

Later on, Mrs. S. added fancy poultry to her bee-business, and now keeps three kinds—Barred and White Plymouth Rock, and Silver-Laced Wyandotte. This works in nicely with bee-culture, as many others have proven to their profit.

Mrs. A. A. Simpson.

Her chicks, she says, are all pets, and as fine as one can find any place.

Mrs. Simpson—like all the rest of her sex—is of a retiring disposition, and so it has not been our privilege to learn more of the particulars of her life. We noticed, especially, that she failed to give the year of her birth, but as we had the pleasure of meeting her at the World's Fair convention, we feel quite safe in saying that she is as old as most women get to be—which is 27, we believe! Now, she can't accuse us of "giving away" her age, for we really don't know what it is.

We agree fully with Rev. E. T. Abbott, who believes in "woman's rights;" and so we rejoice when woman exercises her "right" to keep bees, which takes her out into the health-giving sunshine, amid the beauties of Nature, and gives to her buoyancy of step and fairness of feature and form. Mrs. Simpson, like Mrs. Axtell, of Illinois, has evidently demonstrated the value of out-door employment to women. It is far ahead of the drug-store tonics, and much less expensive in dollars and cents.

What woman has done, woman can do. We trust that, where possible, more of them will combine with their housekeeping, that which will take them out into God's blessed sunshine—bee-keeping and poultry-raising.

THE EDITOR.

Contributed Articles

Important Points on Hive-Construction.

BY ADRIAN GETAZ.

To begin with, do not think all my hives are constructed upon the principles hereafter outlined, for it is not so. When I first began I had some European bee-books and Quinby, and built my hives according to their descriptions and devices. Later on I became acquainted with the Langstroth and others, and built some hives of some other designs. I never threw away any, but some were modified, and I have now some six or eight different kinds of hives, and a dozen or more different kinds of frames. At this point I may say that for a honey-producer who handles his brood-chambers the least possible, it does not matter very much if all his hives and frames are alike or not. But for a queen-breeder who has to make nuclei and transfer his frames from one hive to the other almost every day, such a state of affairs would be intolerable.

THE HIVE-STANDS.

To begin at the foundation, we will take the stands. Mine are benches long enough to hold four or five hives about 12 inches apart, and 14 or 16 inches above the ground. The legs of the stands are planted a few inches in the ground. The hives, or rather the bottoms and brood-chambers, are securely fastened to the benches.

At the beginning I used loose bottoms and loose brood-chambers on the bottoms, but after I had two hives carried to the next pond, the bees drowned and the combs of honey carried away, I concluded that a change of "base" would be an improvement.

There are some advantages in having the hives off the ground. It brings them to a convenient height for working in a standing position. By having several together, those at your side, while you are working at one, are very convenient to lay on your tools, combs, etc., instead of putting them on the ground.

In summer time, if the weather is dry, the ground itself gets intolerably hot, and the hives are much cooler by being above it. In this part of the world, the winter is very rainy, and the hives close to the ground get splasht and wet considerably more than those above, which is certainly a disadvantage.

The bottoms ought to extend about 8 inches in front of the hives. With that precaution, the incoming bees loaded with honey will drop on them and never fall to the ground. The loss of very young bees, barely able to fly when handling the combs, is insignificant. Those that happen to fall on the ground generally succeed in taking wing, or climb on the bench-legs and finally enter some hive. For queen-breeders, handling frames every day, that loss might be serious, and for them it is preferable to have the hives on the ground.

It may be noted here that nearly all our leading writers are queen-breeders, and their advices, preferences and implements are better fitted for that branch of bee-keeping than for a honey-producer.

When I first fastened the hives to the bottoms and benches, I did it in such a way as to be able to "unfasten" them easily in case I should have to do it. As the years went by, I found that the necessity of removing the hives from one place to another occurred so seldom—in fact not at all—that I made the fastenings permanent.

A good deal has been said about the advantage of having hives light enough to be carried from one place to another. What on earth people want to move their hives around for, is a thing beyond my comprehension. There are only two cases in which it is necessary—that is, in taking the hives to the cellars and back, and in hiving swarms on the old stand, removing the old hive. The first case occurs only twice a year, and the extra weight would not amount to much. As to the second, I would rather carry the combs and bees to the new location. In fact, I do not practice that kind of swarming-management any more, as it is not suited to the nature of the honey-flow of this locality. As I winter the bees on the summer stands, the first consideration does not concern me.

It has also been argued that it is easier to clean the floor of the hive when the bottom is loose. Here, we have enough flying days in the winter to permit the bees to do the cleaning themselves.

As to piling two or three small hives on the top of each other to make a big one, I simply do not believe in it. I prefer to have a full-sized brood-chamber, and if necessary use a dummy. A hive too high cannot be ventilated easily by the bees in very warm days, and too much traveling has to be done to reach the supers, resulting in a loss of time to the bees by being in the way of each other.

THE BROOD-CHAMBER.

For this latitude a chaff hive, or something equivalent, is the best. The chaff need not be more than two inches thick, and the lumber may be not more than ½ inch thick. The object is to equalize the heat between night and day, and between warm and cold spells of weather, rather than to keep up a very high temperature.

The winter program here consists in a few days of weather warm enough to permit the bees to fly, followed by rain, and then a cold spell. The process is repeated throughout the winter, except an occasional snow instead of rain, and sometimes a two or three weeks' very cold spell (or what we call "very cold").

During the warm days the bees fly out freely, and toward night quite a number are chilled and lost. Some brood is started and when the cold weather comes again a portion of it is lost on account of the inability of the bees to cover it all. With a chaff hive these inconveniences disappear, or at least are considerably lessened. The walls of the hives do not get warm enough to induce the bees to fly unless the outside temperature is high enough to permit them to do it safely. And more than that, the warmth accumulating in the chaff during the day protects them that much better during the night. A similar equalization exists between the warm and cold days, and is especially useful in preventing the brood from being chilled. The advantages of thus protecting the brood increases as the season advances. During the summer the chaff protection acts as a shade during the day, and prevents the hive from reaching too high a temperature.

HIVE-ENTRANCES AND VENTILATION.

The entrances must be sufficient—the whole width of the hive, and at least one inch high. If the entrance-guards are used, then two inches high, and the whole width of the hive, and at a distance of 1½ or 2 inches from the entrance proper. This also applies to queen-traps.

I don't want to have to raise the hive even if the bottoms were loose. The very hot days occur mostly at times when no honey comes in, and it is necessary that the bees can defend themselves successfully against robbers. An entrance-guard is the best help to them in that respect that could be desired. Before a robber bee can pass through, she is almost sure to be grabbed and executed, or summarily expulst.

Openings in the upper part of the hives are not only useless, but are actual nuisances. It is this way: An opening above will create a circulation of air on account of the difference of temperature between the inside and the outside of the hive. Now if the weather is cold, the circulation will be strong precisely when not needed, or even hurtful. If the weather is very warm, the temperature is about the same outside and inside, and there will be almost no circulation, and the top openings will then be nearly useless, besides affording robbers a splendid chance to raise a racket. For this reason I prefer to have an ample entrance only; that means also a hive not too high, and wide enough.

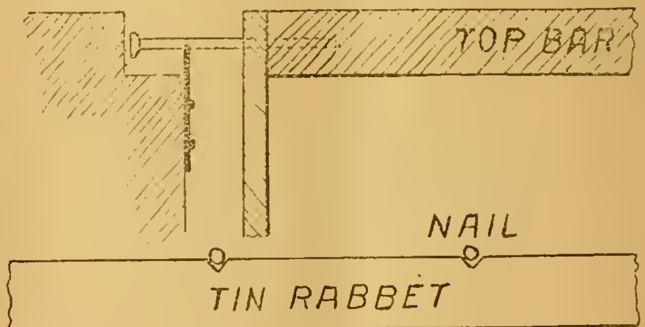
If during the summer the bees hang out, I add on the top one, two or even three empty supers; they may be without sections, as they are intended simply to increase the empty space so as to lower the interior temperature.

BROOD-FRAMES.

Thick top-bars are to be used so as to prevent, or nearly so, the building of burr-combs. As to length, I prefer a frame somewhat shorter than the Langstroth. But it is only for convenience of construction, as I want the brood-chamber of the same size as the supers. These hold four rows of 4¼x4¼ sections. As to the depth, it depends upon the size of the brood-chamber. This I find after a trial of many sizes ought to be about the size adopted by the Dadants. And here I want to repeat what I said above: Our leading writers are nearly all queen-breeders, and therefore have to draw constantly on their colonies to make their nuclei. The result is that these colonies never attain full strength, and that the size of hives they advise is too small for the best honey-producing management. Our most successful, large honey-producers—the Frances, Dadants, Hambaugh, Axtells, Aikin, etc.—use large hives. A few very careful men, such as Doolittle and Dr. Miller, obtain good results with smaller brood-chambers, but it is by very elaborate and tedious systems of management which would take too much time to be carried on anything like a large scale.

Deep frames are undoubtedly better for wintering, but the hive may be too high for ventilation, the more so because a tall hive being not as wide requires more supers to accommodate the bees. On the other hand, the Langstroth frame is decidedly too shallow for a large brood-chamber (I mean a brood-chamber of 12 or 13 frames). The queens go too often in the sections above the middle frames instead of extending the brood-nest clear to the sides. And when they don't go up, they seem loth to lay so far from the center of the hive, with the result that less brood is reared than would be in a 10-frame hive of the same capacity but deeper.

As to the method of hanging the frames, I prefer to have nails driven in the end of the top-bars, resting on tin or sheet-iron supports. Very shallow notches are cut where the nails rest.

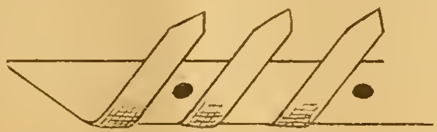


These notches are sufficient to hold the frames in place, but do not prevent a lateral movement. When the apiarist wants to take a frame out, he can push the others aside and very easily draw out the one wanted. When I thought of cutting these notches, I considered myself quite an inventor. Soon after I found that our departed friend, B. Taylor, had preceded me in that direction. I think, tho, that B. Taylor cut his notches much deeper than I, and thereby lost the lateral movement. Frames contracted as above can be put in and taken out as easily as those hung on A. I. Root's old tin corners and tin rabbets, and at the same time have all the advantages of the self-spacing frames without their inconveniences.

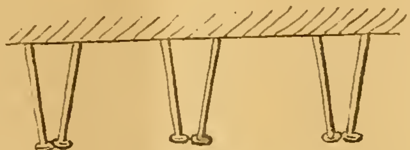
Hoffman frames, and even all-wood frames, are a nuisance. Where the apiarist is a queen-breeder, or for some reason or other handles his frames frequently, the propolis never accumulates enough to interfere; but when the frames are moved but once or perhaps twice a year, at swarming time, or even not at all, the wooden ends of the tops or the sides of the Hoffman get "fixt" and fastened, sure enough.

The depth of frame adopted by the Dadants is, I think, near the best, as far as my experience goes.

The frames do not always hang vertically in the hive. Even those as shallow as the Langstroth frame need some kind of spacing arrangement at the bottom. The best is a strip of tin with teeth cut in and turned up so that the frames come in between, thus:



What little propolis is affixt there does not interfere with the taking out of the frames. With loose bottoms, I had good results with nails driven at the back wall of the hive, about 1½ inches above the bottom, and letting the ends of the frames drop between them, thus:



THE SUPERS.

Much has been said and written upon the importance of protecting the brood against the variations of temperature during the early spring, but very little about the necessity of protecting the supers given in the early part of the season. In my locality the second consideration is fully as important as the first. Owing to the altitude of the country (that means the height above the sea-level), the nights are cool during most of the honey season, and this condition exists also in some of the extreme Western States.

Most of the comb-building, and of the inside work of the bees, is done during the night, as a portion of the bees that gathered the nectar during the day go to work inside after the day-work is over. If the nights are cold, and the bees unable to work freely in the supers, the result will be a clogging of the brood-nest, a failure to build and fill the sections, a considerable loss in the quantity of honey gathered, a loss of brood, and finally a "swarming crop" instead of a honey crop.

After using several kinds of outer cases, I came to the conclusion that chaff supers are the best contrivance that can be adopted. They are made like the brood-chambers described before. To support the sections, I use almost altogether iron bars about ⅛-inch thick, or somewhat less, and about ¾-inch wide. That is the best I know now, but yet not altogether satisfactory. I use sections open on all sides, without separators, and with such sections T tins cannot be used.

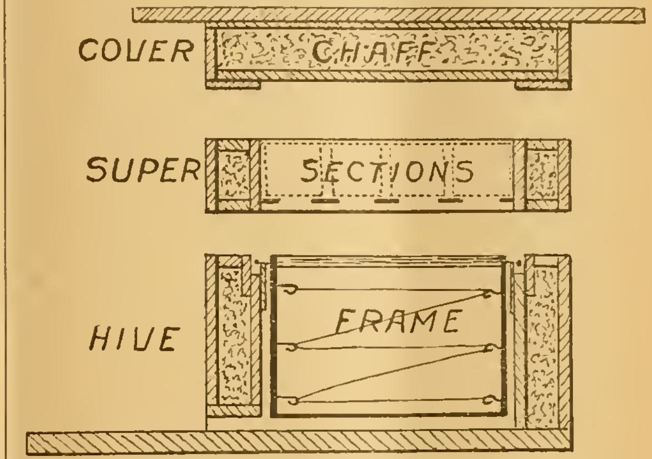
THE HIVE-COVER.

A chaff brood-chamber with chaff supers needs necessarily a chaff cover to complete the outfit. The chaff part is of the same size as the supers or the hive, but the top is considerably larger, so as to help in shading the hive and protect it against the rain.

A large cover has to be made of several pieces, and then be covered so as to prevent the rain from running in at the joints. I use oil-cloth. The wood has to be painted on both sides before putting on the cloth, otherwise the dampness would accumulate between, and rot both in less than two years. The cloth will last almost any length of time if repainted as soon as it begins to crack, and again every three or four years. I think ordinary, cheap tar-building-paper would do just as well as the cloth, but I have not tried it. I think, also, that narrow-heart Southern pine ceiling, tongued and grooved, with white lead in the joints, and painted both sides, would do without any other covering, but I have not tried it.

GENERAL CONSIDERATIONS.

Well, the whole hive would be something like this:



As to practical details of construction, the best is to get the necessary pieces cut in a wood-working shop, and the apiarist to put them together himself. Pieces like that can be had at about the same price as the lumber simply drest. The reason is that all wood-working establishments have quite a large amount of scraps out of which small pieces can be cut.

As to putting together, it would cost too much to have it done at the shop. If the apiarist cannot do the work himself, the best is to hire a common carpenter and have him do the work under the apiarist's supervision.

I spoke of chaff in the above description, but I have used any non-conducting material that happened to be handy—planer shavings, leaves, rags, old papers, etc. My preference is for straw. Nail the bottom strips, and cut off "stray straws" sticking out, with a pair of scissors, and then nail the top strips.

In using outer-cases and temporary packing, I prefer old rags. They can be put in and taken out without making a muss as with shavings or leaves. Knox Co., Tenn.

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Working the Same Colonies for Both Extracted and Comb Honey.

BY WM. M'EVOY.

In producing comb honey I gave the crate system a thorough trial, and also the wide-frame method as followed by others, and never was fully satisfied with the results of either. As I was running my apiary more for extracted than comb honey, I concluded after some testing that I could make a big success of getting nice section honey stored very fast in top stories among extracting-combs, and also get a fine quantity of choice extracted honey from the same colonies, and greatly lessen the number of swarms. When the honey season begins I place on my strongest colonies hives filled with the very *whitest* of combs, and when the bees are storing honey fast I remove half of the combs, then spread the remaining half apart and hang between them wide-frames with sections in. The bees will then rush up the extracting-combs, and with no separators in their way will fill the sections very fast.

When the sections are about three-quarters full of comb I shift the extracting-combs to one side of the hive, hang tin separators between the wide-frames, and then crowd them up by themselves. The top-bars and ends of the tin frames are made out of double tin, the ends of the tin frames are made out of double tin, and the ends of the separators are soldered to the uprights or end of the frames, leaving the usual space between the separators for the bees to get in at the bottom and top edges of the sections. The last half of the season I crowd the wide-frames with sections into the center, and place the extracting-combs at each side of them, so as to have little or no unfinisht sections when the honey harvest ends.

I always fill my sections with foundation because it pays me far better to do so. When I followed the crate system, and also the filling of the top stories with wide-frames with sections in, I was sometimes caught with many unfinisht sections by the sudden closing of a honey-flow. This combination system of taking both section and extracted honey from the same colonies, and the tin frames with separators on, that I got up to suit it, works fine.—Canadian Bee Journal.

The Two Bee-Keepers' Unions—Amalgamation.

BY W. Z. HUTCHINSON.

I did think, now that amalgamation is defeated, that I would write no more on this subject, but Prof. Cook's excellent, but untimely, article has so stirred me that I cannot refrain. A few articles like this, from leading members of the National Bee-Keepers' Union, last fall and winter, would have entirely changed the results—perhaps the Professor's article alone would have done this. Prof. Cook and myself have always been warm friends, and I have always admired his integrity, his fairness, and his comprehensive grasp of even a complicated subject, hence it has been a great surprise to me that he should be so slow in reaching the conclusions that he so clearly lays down in his article on page 242. In short, I cannot conceive how any clear-headed, conscientious, unprejudiced mind could reach any other conclusions.

Nothing was more apparent several years ago than that the National Bee-Keepers' Union had practically finisht its work upon the lines upon which it had been built, and bee-keepers began to demand that it become aggressive as well as defensive, and finally the constitution was so changed that the work of prosecuting adulterators of honey might be added to the work of the Union, but, for some unknown, unexplained reason, no work of this kind was ever attempted. My own personal opinion is that things would have been different if the views of the General Manager had been different, but this is only an opinion, and it may be faulty. Money continued to accumulate in the treasury, but nothing, or next to nothing, was done with it, and finally there came the talk of amalgamation, of uniting the two National Societies into one grand society, and so changing the constitution that the funds and influence of the amalgamated association could be used for prosecuting honey-adulterators, that this be made a prominent feature. From the very first there has been, apparently, a silent, unseen, undefinable influence *against* this union of the two organizations. Gradually there grew, in the minds of some of the members of the Union, the idea that the North American was after the Union's *money*. But there is no use in going over all of the ground; those who have read the American Bee Journal know it too well. Then when the matter of a vote finally came, the matter was not put before the members in its true light. It may not be a pleasant thing to say, but there is no use of mincing matters. A good share of the General Manager's report (with which was sent the blanks for voting upon a change of constitution, or for amalgamation) was devoted to a special pleading that tended towards the defeat of amalgamation. Of course, a General Manager has a right to express his views, but no more so than has the most humble member, and to accompany voting blanks with arguments upon one side of a question, and not allow the other side to be heard, is not likely to result in a fair decision. Suppose, instead of the General Manager's views, the voting blanks had been accompanied by Prof. Cook's article.

Fortunately, through the wise foresight of the bee-keepers that gathered last fall at Lincoln, tho amalgamation failed, there is now a New Union formed upon lines that are up with the times. This organization is now complete, with a Board of Directors, and General Manager, and ready to begin to do what the Old Union has failed to do, viz.: work for the suppression of the adulteration of honey, and to expose and to punish dishonest dealers, in fact, to do anything that is for the good of bee-keepers.

I expected that the formation of a new Union would rouse the old Union into life, bring it to its senses and perhaps induce it to try and do something in the way of fighting the adulteration of honey, and Prof. Cook's article is an indication that my expectations were not in vain. Of course its General Manager is opposed to such a course, but I think that he would yield to the wishes of the majority. But just look at the foolishness of the matter. Two National organizations with the same object in view! "In union there is strength," but the present course of bee-keepers looks a little bit like *dis*union. But how could it be helpt? It seemed the only course left.

But I have no desire to abuse the old Union. I don't know as any one has such a desire. I feel that many of its members have been deluded, and have unwittingly voted against their own interests, but if they can use what money and influence they have in doing good, we certainly ought to bid them God-speed, and join hands and help all that we can. That is, we ought not to try and *negative* the *good* that they can do, but I *do* think that our dollars and our influence ought to go to the New Union that, under difficulties and opposition, has come forward ready to put its shoulder to the wheel without waiting until it was actually forced into this position.

There has been some talk about changing its name to something besides that of "Union," as it somewhat conflicts with that of the old Union. Of course, when the name Union was chosen, it was with the hope and expectation that there would be an amalgamation, and thus only one association left. Now that this has failed, it may be well to change the name, (I would favor "Alliance" as a name) at least, so long as the old Union is in existence. I say "so long as the old Union is in existence," because I fully believe that eventually there will be only one National association of bee-keepers, and that it will at once be social, educational, defensive and aggressive.

Genesee Co., Mich.

THE LINDEN.

BY HON. EUGENE SECOR, FOREST CITY, IOWA.

I come with a song for a tree near my cottage—
  A treasure God placed in his own garden-bed;
A tree which has stood while my wife and my children
  Grew sweet as the creamy-white blossoms o'er head.
Around it the giants of Nature are standing—
  The oak and the walnut—primeval and grand;
But nothing in forest or field can compare with
  The linden in whose cooling presence I stand.

When suns of mid-summer are hot and oppressive,
  We keep our noon-trysting beneath its deep shade;
Its emerald roof gives a promise of shelter
  From fiery old Phœbus when scorching the glade.
The catbird and robin have left the ripe berries,
  To rest in the boughs of my favorite tree;
They'll give me a song for the fruit which they pilfered,
  And evening shall witness a bird-jubilee.

How charming to me is the music created
  By swift-flying bees when exploring its bloom!
My dreamy repose as I swing in my hammock
  Is often enricht by its grateful perfume.
Oh, sing not to me of blest Araby's odors—
  Of spices and incense from tropical seas!
But waft to my senses the fragrance of linden
  Exhaled by the breath of the home-coming bees.

—Gleanings in Bee-Culture.

Bees, Honey and Flowers in California.

BY PROF. A. J. COOK.

The California bee-keepers are expecting a large honey crop the present season. The rain has been very abundant all through Southern California. The flowers are already very abundant, and there seems only one further factor requisite to a fine crop of honey, and that is good weather. Occasionally, just as the honey season opens, there come dry, hot winds, or possibly cold winds, which seem to dry up the flowers, so that there is an absence of nectar. This, however, very rarely happens in Southern California, and so we may hope with some confidence for a good honey season.

The last week has been very warm. The flowers have opened in great numbers, and the bees have been fairly jubilant as they rush to the fields in search of the precious nectar. This has led to swarming, which has been taking place very generally the past week. It is feared that it has taken many bee-keepers by surprise. One bee-keeper came to me and wisht to know if I had hives to spare. The wise bee-keeper will always take time by the forelock, and be prepared for just such emergencies. It is not wise to leave the purchase of supplies to the last moment. Such action often leads to no inconsiderable loss. In California there seems the less excuse, for we usually know as early as February if the rainfall will warrant a honey season. With this knowledge, hives and other supplies should be secured that all may be in readiness at the dawn of the swarming season, as also at the dawn of the honey season.

The new comer in California is always meeting with surprises. This season a new surprise has come to me. I have already stated in the American Bee Journal that California flowers are very long in blossom. I think this more remarkable of California than of any other region that I have ever visited. This season our flowers came out much earlier than they did in either of the three previous years since I came here in the fall of 1893. My class in botany is pursuing this subject from April to June, inclusive. As I saw the April flowers out in March, and even February, this year, I felt a regret that my students would fail to study many of our most beautiful blossoms. I find now that my regrets were wholly unnecessary, for while many of the blossoms came out several weeks earlier than in previous years, yet I find nearly all of them in blossom now. In fact, I doubt if we shall miss a single one. It would seem that some of the flowers are slower to develop, and thus not all feel the effects of the early seasons. This adds another glory to Southern California; for it adds to the profusion of flowers which always greets the lover of nature as he strolls forth over the fields in the spring-time.

Los Angeles Co., Calif., April 19.

CONVENTION PROCEEDINGS

Report of the Illinois Bee-Keepers' Convention

BY JAS. A. STONE, SEC.

[Continued from page 262.]

Mr. Geo. F. Robbins then read the following paper:

THE BEE-KEEPERS' PROBLEM OF THE FUTURE.

In announcing this subject I don't aim to give you an impression that the object of this paper is to furnish a solution of the question—the future itself must solve this problem. My intention is only to state the question and suggest a possible solution.

The problem in brief is this: Are there any means by which bee-keepers can be made sure of a regular annual honey crop? If so, what are those means? If I could be sure of crop of 50 pounds per colony every year, at the low price of 10 cents per pound, I could safely invest all my small resources in bee-culture—could make a fair living, and lay up a little money, perhaps. The uncertainties of bee-culture are its greatest drawback. And under the conditions of climate, etc., we have been having, and are likely still to have, the uncertainties are almost certain to be in even a greater degree than heretofore, if we must continue to depend upon the same flowers to furnish the nectar.

The linden groves are being cut away, never to be renewed. The swamps and bottom lands that used to grow such quantities of autumn-yielding honey-plants are becoming drained and tilled, while the constantly recurring drouths kill out the prince of honey-plants—white clover. And the drouths themselves are likely to continue.

Cutting off the timber and draining waste lands make evaporation much more rapid, and hence irregular; give a cleaner sweep to the winds, by which and other means the annual rainfall is diminisht, and drouths become more frequent, and of longer continuance. Indeed, our long summer drouths have become almost a fixture of our Illinois climate, with every prospect of their continuance. For a strong testimony to these things read the able paper of Dr. Daniel Berry, in the Report of the State Farmers' Institute for 1896, page 124. That the causes I have mentioned do produce drouths I believe scientific men generally agree. Hence, I say, the prospects of obtaining good annual crops of honey are far from bright, if we must still depend upon the same old sources.

Must we conclude, then, that bee-culture is a dying industry, so far as our State is concerned? That would seem to be the case from what I have said. So far, indeed, the conclusion is unavoidable. I have said, however, if we continue to depend upon the old sources of honey. If, then, we are to be more sure of honey crops we must look to cultivated plants, in the main. I say in the main, because, while sweet clover is booming into prominence as a honey-plant, if sown by the wayside and in pastures where alone it seems to be profitable, it can hardly be clast with cultivated plants. But red clover, crimson or Alsike, are properly cultivated plants. Alfalfa may or may not prove a staple crop in Illinois.

I don't know what to say about crimson clover. It may prove a success in some parts of the State, and become something of a staple crop. Red clover will probably never prove to be a honey-plant. But one known honey clover, at least, may and should become a leading crop on Illinois farms. That is Alsike.

It is no digression from the subject to devote a paragraph or two here to the value of clover in general as a farm crop. Clover is pre-eminently valuable for two purposes, viz.: 1st, As a food for stock; 2nd, As a fertilizer. Its merits in these respects are beginning to be recognized, but still they are not known as they should be. All Illinois farmers ought to have heard the talk of Prof. Carter, on clovers, at the State Farmers' Institute last Tuesday afternoon (Feb. 23, 1897). I want to call attention here to some of the leading points of his address.

He shows that clover hay possesses in the largest measure the protein chiefly necessary to make bone, muscle and fat, of all stock foods. Both analysis of the foods and actual experience prove this. But of even greater importance than that are its merits as a fertilizing crop. Mr. Carter shows from the reports of the experiment station, and his own experiments, that a clover sod turned under in the fall or late summer has produced better results than ground well manured with barnyard manure. In one case a clover field of 12 acres thus plowed up had been divided into 12 lots. Ten of these lots had had that many varieties of artificial fertilizers added, and the whole planted to corn. The two which had not received the extra treatment, actually yielded better results than those which had. Mr. Carter's address will, I presume, be printed in full in the forthcoming Report, and it must certainly prove one of the most valuable papers of this session of the State Farmers' Institute.

The points already given show that clover culture should become one of the leading enterprises of the Illinois farmer. But in addition I want to suggest another. Illinois farmers would find it would pay to practice a system of rotation of crops, covering a period of about three years, but varied perhaps as circumstances might suggest, in the following order: Corn or other tilled crop, small grain of some kind, and clover, allowing the latter to stand one year after seeding, and thus return to tilled crops again. While the prime object of this system is renovating the soil, the value of clover as a feed chimes in well with the system.

The merits of clover in general being thus seen, I may now pass to those of Alsike in particular. We are not without testimonies to the effect that Alsike is worth more than the generally-grown red clover, at least for certain purposes. Mr. Stone can tell you of a man near Elgin, engaged in dairying, who claims that actual tests prove that this clover fed to cows produces more milk of a better quality than the red, while one farmer at least, whom we personally know, says that Alsike clover as a hay or forage plant is the best milk and butter food he knows. That is Mr. Cooper, of Sherman—not a noted man, but a pretty intelligent kind of a man, none the less.

Mr. Carter observed that a liveryman would say, "Red clover hay is not a healthy food for horses," and simply commented that the liveryman "don't know that." The great trouble in this case is, that the liveryman is too near correct. One very superior quality of Alsike clover is that it lacks the fuzzy, or hairy, bloom which is the unhealthy ingredient of red clover.

The conclusion of all this is, that when the merits of Alsike clover as a farm crop become known, and it shall be generally grown, we may be much more certain of honey crops, as the properties of this clover as a honey-plant are admitted.

I want to add another thing: If the system of rotation I have described should be practiced, I think we would have more regular crops of white clover bloom than we now have. Where clover has grown for many years there are always countless seeds in the ground only awaiting favorable conditions to germinate. As a consequence, I have seen a crop of white clover bloom in a field seeded the second year to small grain. I have known, also, where wheat and red clover have been alternated for some years, the clover would seed itself. Hence, I think if this system of rotation were practiced, growing tilled crops only one or two years in succession, there might generally be a white clover bloom every year the Alsike should be grown. Certainly if it should germinate, a drouth would not kill it out, as it does in a blue-grass sod.

Some reports seem to indicate that Alsike does not reseed and perpetuate itself very well—that red clover is much better in that respect. This is no great factor if the ground is to be plowed up and tilled after growing one crop.

I want to add here what I forgot to say in its proper place, that I don't claim the idea of rotation of crops with clover as a prominent factor in the system as original with myself. It has been tried by others, and its merits publisht before I ever thought of the plan.

Honey will never, perhaps, become a staple in the sense that sugar or potatoes are staple commodities, but at moderate prices it has already become so near such that it will command those moderate prices and be in sufficient demand to make honey-production as profitable a pursuit as the average, if reasonably good crops can be obtained. Whether or not this can be done I am convinced depends largely upon whether or not farmers shall find it to their interest to grow crops that will at the same time yield honey.

Geo. F. Robbins.

It was the general opinion of the members that the meeting had accomplisht much for the Association by its prominence before the State Farmers' Institute.

The convention adjourned *sine die*.

Jas. A. Stone, *Sec.*

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Texas State Bee-Keepers' Convention.

The 19th annual session of the Texas State Bee-Keepers' Association met recently at the apiary of W. R. Graham. Owing to the death of Rev. W. K. Marshall, President of the Association, and feeble health of Vice-President W. R. Graham, W. R. Howard, M. D., was elected temporary chairman. The following bee-men answered roll-call: W. R. Graham, W. R. Howard, P. G. Carter, A. M. Tuttle, M. M. James, M. Kimbrough, C. W. Simpson, J. N. Hunter, P. D. Farmer, A. D. Morgan, A. A. Girdner, W. M. Stapleton, and several visitors.

The Association was given the liberty to go through the large bee-supply factory and apiary of Mr. Graham. In the bee-yard were nuclei and special hives for queen-rearing. In the factory the manufacture of everything used by up-to-date bee-keepers was in full blast.

At 2 p.m. the meeting was called to order by W. R. Howard, and prayer offered by J. N. Hunter.

A committee was appointed to draft suitable resolutions on the demise of Rev. W. K. Marshall, who died Jan. 6, 1897.

The discussion of honey-producing flora was taken up, especially cotton-bloom. It was generally concluded that the best honey was gathered from the black-land cotton-bloom. Honey-dew figured largely in the discussion. Next the diseases of bees was discust, led by Dr. Howard.

Queens, hives, feeding and feeders, honey-plants, and sowing alfalfa for bees, all came up for discussion. An adjournment was then had until the next morning at 9:30.

When the Association was called to order by the President, *pro tem.*, W. R. Howard, the committee on memoirs, reported the following, which was adopted:

Whereas, Our beloved President, W. K. Marshall, has been called from his post of duty amongst us, and has been removed to a higher and holier plane beyond this life;

Whereas, The Texas Bee-Keepers' Association has lost one of its most ardent members, the State and community a faithful citizen and a worthy Christian gentleman; therefore, be it

Resolved, That in this, our unanimous expression of sorrow and grief, we tender our sincere sympathy to the bereaved family and friends; that a copy of these resolutions be spread upon the minutes of the Association, and that a copy be sent to the bereaved family.

W. R. Howard, J. N. Hunter, }
P. G. Carter, A. M. Tuttle, } *Committee.*

The following officers were elected for the ensuing year: President, W. R. Graham; Vice-President, W. R. Howard; Secretary and Treasurer, J. N. Hunter, Leonard, Tex.

The discussion of the diseases of bees was resumed and discust at length. A resolution of thanks to Mr. Graham and his family for their kind hospitality, and a tender of sympathy to Mr. Graham in his affliction, was unanimously adopted.

The convention adjourned to meet the first Wednesday and Thursday in April, 1898, at Greenville.

J. N. Hunter, *Sec.*

White Clover Seed.—We have quite a quantity of White Clover Seed on hand that we will send you at a bargain. A little of it goes a good ways. It usually retails at 25 or 30 cents per pound, but we will *mail* you 2 pounds for 40 cents, or for sending us *one new* subscriber to the American Bee Journal for a year.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Combs of Honey from a Colony that Had Paralysis.

I had a colony of bees that I think had bee-paralysis, and I destroyed them with sulphur. Upon examination I find the combs nice and straight, nearly all worker. Can I with safety use the combs? As they were in a single story it will only be a loss of ten combs, which I had rather lose than run the risk, if there is any. The combs are filled with brood and honey. Will it hurt the bees to clean them up?

A. V., Louisiana.

Answer.—I think no one has ever reported the conveying of the disease from combs or honey, so I should use them.

Use of the Dummy or Division-Board.

In the book "A Year Among the Bees," we read on page 49, line 14: "When it......frames;" and on page 50, lines 23 to 27: "The 4 or 5 frames......top-bar." I tried this plan last year, but it did not work well with me. My bees build new combs on the lath in the empty room and filled them with honey before they went into the sections. Now I would like to know:

1. How wide is the dummy (empty space) between the comb and division-board?

2. Has the empty room, north of the division-board, to be shut up (so close) on top and below that no bee can get in it?

G. R.

Answers.—Bee-keeping is rather an unfortunate subject to write a book about, because what seemed right ten years ago may seem quite different now. At present I don't follow the plan about which you are inquiring. Bees don't make very good work in that part of the super that has no brood-combs under it, and in general it is better to leave combs under the whole super. But I'll try to answer your questions.

Remember that a 10-frame hive was used, 15½ inches wide inside, and over it was placed a super 12⅞ inches wide inside. When the super was put on, that left 2⅝ inches of the width of the hive uncovered, as explained on page 51. Possibly you covered that 2⅝ inches, and if so you'd be pretty sure to have plenty of comb built in the empty space. With the dummy and division-board between them and the brood-combs, and nothing but the open sky above them, the bees were not much inclined to build. The dummy was made of inch lumber, and was just the size of a frame of brood-comb. The bees were not prevented from going into the empty space, for altho the division-board fitted quite close at the ends, bees could freely pass under it in most cases. As already said, the freedom from comb-building came from the separation of the bees and from the openness of the place.

Swarming—Introducing Queens—Early Queens Dark.

1. On the third Monday in March I had a large swarm from a very strong colony of Italians. I caged the queen when she came out, and let the bees hive themselves, by removing the mother colony to a new stand. On examination of the old colony I found 9 capt queen-cells. The same day I made equal division of 8 strong colonies by removing 5 frames and the queen and all adhering bees, besides giving them the bees from one more frame by shaking the bees off. I closed the entrance with wire-cloth until the next evening, and then gave to the queenless part on the old stand a capt queen-cell in a Doolittle queen-cell protector. Only two cells were capt, and the two colonies swarmed as soon as their first cell was capt. I caught the queens and returned them, and

destroyed all cells. Why did they swarm? or why did they prepare queen-cells when they already had the capt cell I gave them?

2. Will a queenless colony of bees accept a queen at the entrance of the hive, as the queen hatches? That is, in cutting out cells some of them would hatch in my hand and I let them crawl out into a queenless hive.

My bees are doing splendidly. They have been bringing in honey for over 30 days.

3. Some of the queens reared from yellow mothers are as black as can be. Will the black queen from a yellow mother mated with a yellow drone produce yellow bees? The only solution I can guess at is, that the spring has been cool. This is my first experience in artificial increase.

New Berne, N. C.

Answers.—1. The two colonies that swarmed were in the same condition as any colony that casts a second swarm. They had a young queen just emerged, and a number of young queens just ready to emerge, and what perhaps had still more to do with the case, they had probably quite a strong force of field-bees, and these were busily bringing in honey. Under such conditions any colony would swarm that half knew its business.

A queenless colony will nearly always prepare not merely a single queen-cell, but a number of them, and your giving them one would not change their instinct in that respect. If you had given a dozen queen-cells to each one they probably would have started others.

Now I'll answer a question or two that you haven't askt. You might have had better results by proceeding differently. Instead of putting the queen on a new stand, you ought to have left her on the old stand, putting the queenless part on the new stand. It is not necessary to fasten in the bees for 24 hours. Most of the field-bees would go back to the old queen, and that would be all right. At the end of 24 hours they would be reduced in numbers, no honey coming in, and feeling meek enough to accept thankfully a queen-cell from you. Even if they started other cells they would be destroyed as soon as the first hatcht.

2. Generally they will.

3. It is a common thing for queens reared early in the season in cool weather to be darker than those reared later, just as you supposed. But their workers may be just as light as any. Some of the imported queens are very dark.

Not Flying Much—Transferring—Preventing Foul Brood.

1. March 10 I bought a colony of bees in a Langstroth hive, paying $5 for them. At first they seemed all right. On warm days a good many were flying out, but for the last two or three weeks they have not flown much. Some warm days they fly pretty well, but most of the time they do not go out, but loaf around on the alighting-board. The man that I bought them of told me to feed them every day to get the queen to laying, so from the first I put a feeder on the frames, and every night (with a lantern for light) I put in syrup made from granulated sugar. Was it wrong to open the hive on cool nights, if only for a few seconds? If the queen is lost or dead, is it any fault of mine? There seems to be plenty of bees, and no dead ones around the hive. What is the matter with them?

2. I have a colony in a box-hive, the top of which is easy to get off, but the bottom is nailed tight. When I transfer them can I drum them out from the top, or will I have to invert the hive and get them out from the bottom.

3. I saw in a copy of the Bee Journal that carbolic acid and tar placed in a little box with the cover perforated and put under the frame in a hive was a sure cure for foul brood. Wouldn't it be a good idea to keep the acid and tar in every hive, so as to prevent foul brood? Perhaps it would keep the bee-moth out, too.

Bridgeport, Conn.

Answers.—1. It isn't easy to say without knowing more minutely about the case. Possibly the colony is all right. When bees have the first chance in spring, they make a big time flying out, no matter if they can't do anything but to fly around and come back again. After that they are more saving of their strength, and don't do much flying except to some purpose. If there is nothing upon which the bees can forage, you ought not to expect them to fly much. It isn't well to open a hive when it is cool, but probably you didn't do much harm by opening it for a few seconds. But don't do so any more. Let bees alone when it's cool, unless they are in danger of immediate starvation. And it's about as comfortable to starve to death as to freeze to death. If the queen was all right your opening the hive would probably not result in her death, altho it might have some tendency in that direction.

2. You can drum out just as well without inverting, and probably better. The only object in inverting the hive is because the hive is open at the bottom and not at the top. But I'm a little puzzled to know how a box-hive can have its top easily removable. Perhaps, however, the combs are fastened to bars, and not directly to the top.

3. Not much attention is paid to the use of drugs either for the cure or prevention of foul brood in this country, but across the big pond they pin their faith no little to them, many making a practice of constantly using something like naphthaline or carbolic acid as a preventive. It can at least do no harm, unless so strong as to be offensive to the bees. It is doubtful whether it would do any good to keep out moths. The microbes or bacilli of foul brood are not of animal growth like moths, but vegetable.

A Plan of Dividing a Colony.

Having a colony of Italian bees which I wish to divide, in order to get two or more queens from the Italian mother, can I proceed in this way, viz.: After fixing a division-board in an empty 8-frame hive, take six frames out of the old hive, putting three on each side of the division-board, and making the entrance of each on the opposite ends of the hive? How long should the bees be confined? The remaining two frames I would leave in the old hive with the queen. I suppose, of course, that the three frames of bees would each rear a queen. If you do not approve of the above, kindly suggest a better plan.

C. M. M.

Answer.—Your plan will work all right, the only trouble being that you're not as likely to get good queens as if they were reared in a strong colony. I should prefer this plan: Take two frames with the queen and adhering bees, and put them into another hive on a new stand. That leaves the old colony strong to rear queens of the best character. A week later put the queen with her two frames back on the old stand, and put your hive with the middle partition where the old queen has been. The bees being now queenless will mostly stay wherever put. Perhaps you may do well to leave only two of the frames in each nucleus, giving the other frame from each to the old queen. If the weather should be at all cool at any of the time, you will find quite an advantage in having the two nuclei in one hive. Be sure there is no communication inside between the two compartments, and on each side put the brood-frames close to the division-board, which is best to be not more than ½ or ⅜ inch thick.

Questions About Swarming.

As swarming time is drawing near, I would like to ask you a question or two concerning the same. I have only a few colonies, being a beginner. I am interested in them, and wish to learn all I can.

1. Can a person tell within a day or two, at most, when a swarm will issue? Some tell me they will issue leaving only capt queen-cells; others say the young queen is always hatcht first.

2. After a swarm issues, should all the queen-cells but one be cut out immediately, or in a day or two?

3. Do second swarms ever come off accompanied by more than one queen? If so, please explain it.

J. M. O.

Answers.—1. No, you can't tell for sure within a day or two. During the swarming season, when you find a colony that has a good laying queen with a number of sealed queen-cells, you may feel pretty sure it will swarm within a week, in fact generally within a day, but you can't always be sure, for sometimes they seem to change their minds and give up swarming. As a rule, the colony swarms with the old queen as soon as the first queen-cell is sealed. It would be a very unusual thing to wait till the young queen was hatcht.

2. Very few bee-keepers practice cutting out queen-cells after a swarm issues.

3. Sometimes quite a number of young queens will come off with the last after-swarm. I hardly know what there is to explain about it. The bees seem to have given up the idea of keeping the young queens confined in their cells, all are allowed to emerge, and being free they are more likely to go with the crowd than to stay in the hive.

☞ This is a good time to work for new subscribers.

The American Bee Journal
OLDEST BEE-PAPER IN AMERICA

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Editorial Comments.

New Union Membership Fees are coming to this office now. That is right; just send your New Union dollars to the Bee Journal office, and we will promptly turn them over to the proper officer, who will then send you a receipt. Remember, the General Manager can't do a thing towards carrying out the objects of the new society without having a good bank account to fall back upon. So in order to get the General Manager to work, we must furnish him the wherewithal to begin on. We would like to see the Bee Journal readers well represented on the membership roll of the New Union.

◆

American Fruit Growers' Union.—Hon. Geo. E. Dudley, one of Utah's leading honey-producers, wrote us as follows lately, concerning the American Fruit Growers' Union, which may some day be able to help out bee-keepers in the marketing of large crops of honey:

> EDITOR YORK:—I wish to know through the columns of the American Bee Journal, something about the "American Fruit Growers' Union." They advertise to handle honey with farm produce, and have agents in all the large cities in the United States. The general idea is good, but is there any way for you to find out whether they are reliable or not?
>
> If this American Fruit Growers' Union is all right, would it not be a good idea to talk with them and get a reliable honey-man to take the honey department with them, and keep in communication with all the large towns and cities, so as to have the honey crop distributed where it should be, instead of its being piled up in some cities to such an extent as to glut the market and ruin prices?
>
> Unless a well known man could be placed at the head of such a department, producers of honey would be afraid to ship to them in large lots. GEO. E. DUDLEY.

Upon receipt of Mr. Dudley's letter we called at the office of the Fruit Growers' Union, and had quite an extended interview with them. We also, fortunately, met the Union's Denver agent, who previously had a 27 years' experience in the produce commission business.

From what we could learn, we believe this Union has a great future, and can be of wonderful service to its patrons. But it is yet in its experimental stage, and while it anticipates handling some honey this year, we think it is hardly in a position to do an extensive business in that line now.

We really believe that some such organization is just the thing for larger producers of honey to co-operate with, for they can have the facilities for handling the honey-business in connection with their fruit trade, that bee-keepers' couldn't possibly afford alone. That is, the honey industry is not sufficiently extensive to swing itself in such a manner, and do it profitably to honey-producers.

We believe the California Bee-Keepers' Exchange expects to try working in connection with, or through, the American Fruit Growers' Union this year, and after one season's experience it will be better known whether it would be advisable for all large honey-producing sections in the country to thus connect themselves with the Union.

We think the Union has the right idea, but it is a stupendous scheme. Of course the majority of the best commission men are opposing it, for they seem to think that it proposes to annihilate them. But such fears are groundless. We believe, finally, that all honest commission men will welcome its aid, tho it can be invariably counted on that the fraudulent concerns will forever be against it. You see it will simply cut off the chance for them to get their hands into the producers' pockets, when all produce is first sold to or through the Union. If a success, it certainly will effectually kill out the snide commission dealers—a thing greatly to be desired.

Perhaps we have said enough on this subject for this time. As soon as we can learn something a little more definite concerning it, we will again bring up the subject in these columns.

◆

Back Numbers Since Jan. 1.—We are able to supply complete sets of the Bee Journal since Jan. 1, 1897, to any who may desire, at two cents per copy. There are a number of new readers who perhaps would like to get some of the first numbers of this year, to complete their volume for 1897. We shall be glad to furnish them as long as they last, at two cents each.

◆

Stingless Bees of Central America.—Mr. J. H. Martin, in the March Rural Californian, in speaking of stingless bees, says that "the Department of Agriculture is making inquiries into the honey-producing value of the stingless bees of Honduras. A colony of the genus Melipona was brought to the Department grounds in Washington and kept under observation for some time, but they did not prosper; failed to breed up though fed regularly, and finally deserted the hive. The entomologist further reports that these bees will not withstand our winters, as they do not thrive where the temperature goes below 50° Fahr. They are considered of no value here."

◆

Queen-Bees and the Mails.—We received an advance proof of the following from Mr. Ernest R. Root, Chairman of the Board of Directors of the United States Bee-Keepers' Union, which also appeared in Gleanings for May 1:

QUEENS EXCLUDED FROM THE MAILS.

A gentleman conversant with mail matters informed E. T. Abbott, ex-President of the North American Bee-Keepers' Association, that the Government was "talking of excluding queens from the mails." This would indeed be a calamity to the bee-keepers of the United States. The sending of queens by mail has grown to be a large and important industry. Anywhere from five to ten thousand dollars' worth of queens are sold in a single season in this country alone. Great good results in the interchange of stock, and without this interchange there would very soon be inbreeding.

Our older readers will remember that there was a time when queens were debarred from the mails, simply because one ignoramus of a bee-keeper attempted to send a queen and some bees in a flimsy *paper box*. Of course, the box broke and let the angry bees out into one of the important offices of the service. The result was that Uncle Sam shut down on sending any more queens through the mails, and we all had to send queens by express at a charge of from 15 cents to $1.00. These charges, for the time being, killed the industry. I wonder if another ignoramus has tried sending bees or queens in another paper box, or doing something else equally foolish. It would be interesting to know why the Government should be talking at this time about "excluding queens from the mails." Bee-keepers have enjoyed the privilege for the last

15 years, and we were not aware that there had been any trouble since the paper-box incident.

It was Prof. A. J. Cook who made a special trip to Washington to get the queens readmitted to the mails, and he was successful; but the condition was made that there should be two sheets of wire-cloth over the opening to the cage. But in later years bee-keepers have, instead of two sheets, used one, and a thin strip of board over the wire. This conforms to the *spirit* of the law—in fact, is better than the two pieces of wire-cloth.

WORK FOR THE NEW UNION.

The United States Bee-Keepers' Union, recently organized, has been advised of this matter; and as a member of the Board of Directors, I feel sure it will take energetic and prompt action. But in order to accomplish much in this or any other direction there must be more means and more funds at the disposal of the General Manager, Mr Secor. Under the circumstances, the new organization has made a good start; but it needs something more than a good beginning to do the work that it has laid out for itself. Bee-keepers everywhere who are interested in seeing that queens are not shut out from the mails, in fighting dishonest commission men, in coping with the adulteration evil—in fact, in any and every thing that needs intelligent and organized effort, should send in their names, accompanied by $1.00, at once to the General Manager, Eugene Secor, Forest City, Iowa, or to the Secretary, Dr. A. B. Mason, Station B, Toledo, Ohio. If more convenient, the money may be sent to George W. York, 118 Michigan Street, Chicago, or to this office, and we will see that the money is duly forwarded; and the persons enrolled as members. Remember, the amount is $1.00. This entitles you to all the privileges of the organization, and allows you to have a voice in certain matters at the annual meeting, whether you are present or not.

We are glad the New Union has taken hold of this matter promptly, for we are sure that when the Postmaster General finds that bee-keepers have an organization that looks after *all* their interests, he will be only too glad to see that their is no interference with so needful and rightful a thing as the permission of queen-bees through the mails, as has been the practice for so many years.

As Chairman Root says, to exclude queen-bees from the mails would be a serious blow to the onward progress of improved bee-culture in this country, and certainly a wise Postmaster General will not unnecessarily injure so useful and honorable an industry.

Bee-keepers will readily see that in order for the New Union to properly look after their interests, they must become members of it. This they should do at once, for certainly it is not fair that a very few should bear the expense of work which is for the benefit of all.

The Weekly Budget.

Mr. J. T. Jones, of Maryland, when renewing his subscription wrote: "The 'Old Reliable' is a welcome weekly visitor, and when it fails to show up it will be when I can no longer raise the wherewithal."

Mr. L. M. Willis, of Clark Co., Wis., was recently elected for the fourth term to the position of Town Clerk. This shows what the folks that know him best think of him. He evidently doesn't belong to the class that "are without honor save in their own country."

Mr. Thos. Evans, of Lansing, Iowa, is now advertising his process of sheeting wax for making comb foundation. Unfortunately, in the first appearance of his advertisement in the Bee Journal last week we had his address printed "Lansing, Mich." It should have been *Lansing, Iowa.*

Mr. I. J. Stringham, of New York State, writing us April 22, said:

"The reports from everywhere seem to indicate a big honey crop. We had lots of snow, and that usually means lots of clover, which is coming right along now. Everybody is buying supplies, which is another good sign."

Mr. A. Y. Baldwin, of DeKalb Co., when sending in his dollar for membership in the New Union, had this to say:

"Here is my dollar for the New Union, and my best wishes go with it, and all else that I can do to promote its best interests. May you and the Union be prompted in any way to put down any fraud or dishonest person or corporation to the lowest notch possible."

Mr. J. E. Pond—of our "Question-Box" force—wrote thus April 22:

"Editor York:—The season here seems to open well, and if everything keeps up as it has, it will be favorable for a honey crop. But, then, we don't produce much honey here, anyhow. I am pleased to see that the American Bee Journal keeps on in the old line, and abreast of the times. This is to be expected, of course, but still you are entitled to thanks for your efforts. I appreciate your work."

Mrs. N. L. Stow—a successful bee-keeper about 10 miles north of Chicago—is still "Mrs. Alderman Stow," as Mr. S. was lately re-elected alderman for his ward in the Evanston city council. But that doesn't mean that he is "Stow-ed away" in a cozy place, for to be the right kind of an alderman in a thriving city like cultured Evanston, is no "soft snap." And Mr. Stow will be the "right kind," every time. But if he *should* get cantankerous, Mrs. S. can easily turn the bees loose on him, and make him into a big "pin-cushion!"

Mr. W. L. Porter, Vice-President of the Colorado State Bee-Keepers' Association, wrote us from Arapahoe county, April 27:

"The bees are all right so far, and we are in hopes we will not have the trouble we had last year. The Denver market is bare of extracted honey, but there are quantities of the adulterated stuff."

Better try to get an anti-adulteration law in Colorado, and then all your bee-keepers join the New Union, and it will help you enforce the law.

Now for New Subscribers for the rest of 1897: We would like to have each of our present readers send us at least *one new subscriber* for the Bee Journal before June 1, 1897. That surely will not be hard to do, when they will need to pay *only 60 cents* for the rest of this year. That is about 8 months, or only 7½ cents a month for the weekly American Bee Journal. Any one with only a colony or two of bees should jump at such an offer as that.

Now, we don't ask you to work for us for nothing, but will say that for each new 60-cent subscriber you send us, we will mail you your choice of *one* of the following list:

Wood Binder for the Bee Journal	20c.
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50 " " on "Alsike Clover"	20c.
6 copies "Honey as Food and Medicine"	20c.
1 copy each "Preparation of Honey for the Market" (10c.) and Doolittle's "Hive I Use" (5c.)	15c.
1 copy each Dadants' "Handling Bees" (8c.) and "Bee-Pasturage a Necessity" (10c.)	18c.
Dr. Howard's book on "Foul Brood"	25c.
Kohnke's "Foul Brood" book	25c.
Cheshire's "Foul Brood" book (10c.) and Dadants' "Handling Bees" [8c.]	18c.
Dr. Foote's Hand-Book of Health	25c.
Rural Life Book	25c.
Our Poultry Doctor, by Fanny Field	25c.
Poultry for Market and Profit, by Fanny Field	25c.
Capons and Caponizing	25c.
Turkeys for Market and Profit	25c.
Green's Four Books on Fruit-Growing	25c.
Ropp Commercial Calculator No. 1	25c.
Silo and Silage, by Prof. Cook	25c.
Bienen-Kultur [German]	40c.
Kendall's Horse-Book [English or German]	25c.
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1¼ " Alsike " "	25c.
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Queen-Clipping Device	30c.

We make the above offers only to those who are now subscribers; in other words, no one sending in his own 60 cents as a new subscriber can also claim a choice of the above list.

Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offer above.

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Bee-Keepers' Directory, by H. Alley.—Latest methods in Queen-Rearing, etc. Price, 50c.

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(Read Carefully.)

The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only ONE book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted, see postpaid prices given with the description of the books on this page Following is the clubbing-list:

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3. Bee-Keeper's Guide	1.75
4. Bees and Honey [Cloth bound]	1.65
5. Doolittle's Scientific Queen-Rearing	1.75
6. Dr. Howard's Foul Brood Book	1.10
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Mention the American Bee Journal.

General Items.

Good Outlook—Fly-Paper.

I have 56 colonies of bees in very good condition. I had 60 in the fall, but some were not very strong, and I have been doubling up. They commenced to bring in pollen Feb. 15. The outlook for a honey harvest is good.

Was there a recipe publisht in the Bee Journal telling how to make fly-paper? I have lookt all day through the back numbers, and have failed to find it. I want fly-paper to catch roaches and wasps. They are very numerous here and troublesome.

(REV.) JAMES G. TETER.

McMin Co., Tenn., April I.

[In 1894, we publisht the following directions for making fly-paper, which first appeared in the Progressive Bee-Keeper, from the pen of the late Mrs. A. L. Hallenbeck:—EDITOR.]

Take one pint castor-oil; ½ pint of honey, and 1½ pounds of resin. Heat the oil and honey together; when hot, add the resin; stir till all is dissolved and thoroughly mixt. Spread on paper, and place where flies congregate. It makes no mess, and all flies stick fast. Two sheets of paper may be placed together, and when wanted, pulled apart by warming a little by the fire. It will not dry up for a long time. Enough may be prepared at a time to last all the season. The preparation can be kept in any covered dish, and used when wanted.

Experience in Shipping Honey.

Years ago I shipt 1,000 pounds of honey by freight to a commission house. A few days after I received a letter that the honey was received, but in a dreadfully bad shape, broken and leaking, and all smeared over with honey; they would have an awful time to fix it up for sale, but would do the very best they could for me; they were sorry for me, as the railway hands are so careless in handling freight. Well, I had a brother-in-law living in the same city, so I wrote him thus:

"DEAR BROTHER:—Go to the commission house of Messrs. So-and-so, and take their letter and the order I send you, and take all the broken honey and use it in your family. If there is more than you can use, give the balance to the rest of our friends," etc.

He wrote me thus: "I went to see the parties; there were a few cases of honey on the ground floor. I was looking at it when one of the firm came to me and askt me if I wanted honey. I told him I was only looking at it. It was very nice. 'Do you deal largely in honey?' I askt."

"Yes, sir; we get it by the carload from California. Come upstairs and I'll show you a fine lot we got in a few days ago."

"Well, isn't that a fine lot?" "Yes, sir."

"Where did you get that from?"

"We got that from a man named J. T., in the southeastern part of Minnesota."

"Don't it get broken up very badly shipping it so far?"

"No, sir; there was not a single crate in the whole lot broken."

My brother-in-law put his hand in his pocket, took out their letter, and said: "Please read this."

Judge of his surprise. "Well," he said, "I don't understand this. Let us go down below."

His partner was sitting at the desk; he handed him the letter, and said, "How is this?"

"O that miserable clerk made the mistake. It was another man's honey that was broken!"

They were to hold this honey at 12½ cents per pound. When I went to see them they had sold all the white honey, and it netted me 9 cents, so they beat me after all.

I shipt 500 pounds to another commission man in the same place. After he had the

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that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polisht on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equipt with best machinery, all combine to enable this firm to furnish the

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That Queen-Clipping Device Free!

Works Like a Charm.

The Monette Queen-Clipping Device WORKS LIKE A CHARM. With it I have clipped 30 queens, all in one day, when examining my bees. WM. STOLLEY, Grand Island, Nebr.

Couldn't Do Without It.

I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now.

DR. GEO. LACKE, Newburgh, Ind.

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Send us *just one new name* for the American Bee Journal a year (with $1.00), and we will mail you the Queen-Clipping Device FREE of charge. Or, the Queen-Clipping Device will be sent postpaid for 30 cts. But why not get it as a Premium by the above offer? You can't earn 30 cts. any easier. Almost every bee-keeper will want this Device.

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We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 7½ cents per pound; 2 cans in one case, 7 cents; 4 cans (2 cases) or more, 6½ cents. The Cash MUST accompany each order. **Fine Basswood** Flavor Honey at same price; also in 270-lb. barrels.

☞ A sample of either honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

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The Yields and Price of Honey; the Pasturage and Nectar-Producing Plants; the Bee-Ranches and how they are conducted. In fact the entire field is fully covered by and expert bee-man. Besides this, the paper also tells you all about **California Agriculture and Horticulture.** $1.50 per Year; Six Months, 75 cents. Sample Copies 10 cents.
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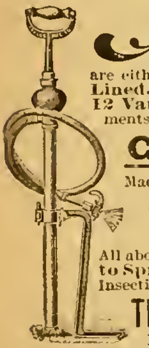

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We have the **finest Lumber to be had** for
One-Piece Sections,
all Second-Growth and White as Snow. We have all the **up-to-date machinery,** and are in a position to fill your order promptly and satisfactorily.
Write for Price-List and Sample Section free. Yours &c,
WAUZEKA SECTION CO.,
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Barnes' Foot-Power Machinery.

Read what J. I. PARENT, of CHARLTON, N. Y., says—"We cut with one of your Combined Machines, last winter 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will. Catalogue and Price-List Free. Address, W. F. & JOHN BARNES, No. 995 Ruby St., Rockford, Ill.
45Ctf
Mention the American Bee Journal.

honey for some time. he wrote me that the honey market was improving; he would soon close out what he had at 12½ cents. He said: "I want you to ship me some more honey right away, as I can get you 12½ cents." But I did not send any. He wrote me a second time to ship him more honey. I had other business that called me there, so I dropt into his place of business. Real glad to see me. "Brought me some more honey?" "No." He had one 12-pound crate left, and said, "Well, we will settle for this lot first." After taking freight and commission out, I had 8 cents left. I remonstrated with him, and said, "Here's your letter." But all to no purpose. Well, he paid me, but he would not pay me for the one crate that was left until it was sold, so I took it away. He then askt me to ship him some more, and I askt him if he thought me a fool, and he laught heartily.

I put away 84 colonies of bees last fall, and had to feed several colonies. We had a very poor honey-flow last year, and no fall honey. We had about one-third of a crop. The queens quit laying early, so the colonies are not extra strong, but of those I fed, the queens started laying, and I think they will come out the best of the lot. The basswood was the most promising I ever saw, but the hot, dry weather blighted the bloom, so we did not get any honey from it at all. JOHN TURNBULL.

Houston Co., Minn.

◆

Yellow Locust—Honey-Plants.

Referring to the query of P. I. Huffman, on page 156, concerning the value of yellow locust in bee-culture. I would call attention to the fact that Frank Benton, in his "Manual on the Honey-Bee," ranks the locust (common, black or yellow) of first importance. This yellow locust (Robinia Pseudacacia) abounds in this part of the country, and is of more service to the honey-bee north of the 30th parallel of latitude than south, blossoming there in April and May, while in the region of Philadelphia (40th parallel), it blossoms in May and June. He says:

"Of these which may be cited as the chief sources of honey and pollen in the North [that is north of 40th parallel] the tulip tree, locust, white clover, alfalfa, melilot, linden and buckwheat furnish most of the surplus honey."

And after reciting the importance of such trees and plants as willows, elder, maples, dandelion, chestnut, linden or basswood, Indian corn, buckwheat, fireweed, willow-herb, knotweeds, mints, cleome, golden-rods, Spanish-needles and asters (especially heath-like aster), he says:

"Some of the clovers, mustard, rape, cultivated teasel, barberry, sumac, coral-berry, pleurisy-root, fireweed, borage, etc., tho yielding well, are only found abundantly over certain areas, and do not therefore supply any considerable portion of the honey that appears on the market, tho, when any of them are plentiful in a certain locality, the bee-keeper located there will find in nearly all cases that the surplus honey is increast thereby."

This lengthy quotation, altho not bearing directly on the question as put, I believe will be helpful to many like persons who have not had the opportunity to observe the habits and wanderings of the bee in its pursuit for nectar. I understand our mission is to help those who help themselves, and be helpt in return. JOHN WILCOX.

Philadephia Co., Pa.

◆

A Shade for Bee-Hives.

Within the last two years I have been reading the Bee Journal with much interest. I have frequently seen where the question was askt as to the best plan to shade the hives in hot weather. As I have been a carpenter and joiner for the last 20 years, and naturally of an inventive turn of mind, I think that I can now describe a shade top that will meet the approval of all. Besides its simplicity and cheapness of con-

Always on hand

producing a constant sense of security, ready for all emergency cases of sudden illness, particularly in the country home far away from the physician and the drug store should be kept a bottle of that favorite remedy
Warner's Safe Cure
As a general system renovator it has no equal, as it acts directly upon the **Liver** and **Kidneys.** It is an unfailing remedy for
BRIGHT'S DISEASE
URINARY TROUBLES
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It is a purely **vegetable compound** and may be taken into the weakest stomach without any harmful results. Beware of substitutes. There is nothing "just as good" as Warner's Safe Cure.

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Dovetailed Cedar Hives
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Working Wax into Foundation for CASH A Specialty.
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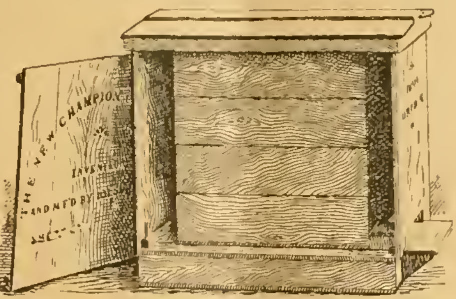

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We deliver all goods f. o. b. cars or boat landing at Sheboygan, Wis. Address,

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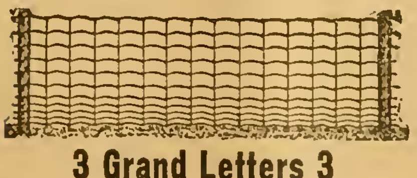

3 Grand Letters 3

in the April "Hustler." One from a despondent agent in Oregon to a successful California agent. He being out canvassing his wife, also a "Page enthusiast," answers the letter, sending copy to her husband, who supplements with one of his own and sends us copies of all three If interested in fencing, send for free copy.

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

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I ARISE

TO SAY to the readers of the BEE JOURNAL that

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has concluded to sell —BEES and QUEENS— in their season, during 1897, at the following prices:

One Colony of Italians on 9 Gallup frames, in light shipping-box	$6 00
Five Colonies.....	25 00
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1 untested queen.	1 00
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1 select tested queen	2 00
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Select tested queen, previous season's rearing..	4 00
Extra Selected for breeding, THE VERY BEST..	5 00

About a Pound of BEES in a Two-frame Nucleus, with any Queen, $2.00 extra.

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☞ Circular free, giving full particulars regarding the Bees and each class of Queens.

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—A GENUINE—

Egg Preservative

That will keep Hen's Eggs perfectly through warm weather, just as good as fresh ones for cooking and frosting. One man paid 10 cents a dozen for the eggs he preserved, and then later sold them for 25 cents a dozen. You can preserve them for about **1 cent per dozen.** Now is the time to do it, while eggs are cheap.

Address for Circular giving further information—

Dr. A. B. MASON,
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It is full of information. ☞ Write for it.

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APIARY—Glen Cove, L. I.

EVAN'S Improved Machine for Sheeting Wax.

This machine produces a continuous sheet of uniform thickness and any width desired directly from the melted wax. No lapping or welding done in this proces. This machine is a rapid worker, simple in construction, easily operated either by hand or steam power, and price within reach of any supply dealer. Correspondence solicited. Sample sent on receipt of order and postage Patent allowed March 18, 1897. THOS. EVANS, Lansing, Iowa.

Mention the American Bee Journal.

struction, I think it as durable and perfect a shade in all respects as could be desired. I used it in my apiary last season, and find it a success, besides adding a finer appearance to the apiary. It is made as follows:

Take what we term barn-siding boards (pine), 12 feet long, 12 inches wide, and cut them into four pieces, 3 feet each. Be careful to saw them square, and all of the same length. Then gauge one edge on the rough side ¼ of an inch, and plane it down to a bevel. When this is done, place the beveled edges of two boards together, which forms a cottage roof with a pitch of 3 inches to the foot. Nail the two edges together in that shape, by nailing from both ways. Then take a common plastering lath, cut it in the center, nail one strip on each gable end at the bottom, and it is complete.

Now place this on the hive, and you will at once see that it fills the bill, as it will fit any hive without having to lay stones or other weights on it to make it stay. Besides, it leaves an air-space above the top of the hive, and it can also be shoved forward as far as desired, so as to shade the entrance.

When not in uso they can be piled up in a compact shape, as they will nest together as compactly as pie-pans.

They can be made shorter or longer, as desired; and if they are properly cared for they will last as long as the hives will last. Anybody can make them. Besides, it requires only 6 feet of lumber, one lath, and a dozen small nails to make one, which will make them cost about 10 cents each. They will last a lifetime, and are always ready when needed. It does not require the best grade of lumber to make them, and the top side can be painted if desired.

I find them indispensable in stormy weather, always keeping the hives dry and well protected. They can also be put on or taken off of the hive at any time without jarring or disturbing the bees in the least. I am sure that all who try this plan for a shade and storm protector will find it a good thing.
C. S. FRENCH.

Todd Co., Minn.

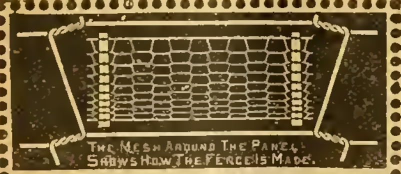
Price and Value of Honey.

As the principles which govern price in all salable commodities are alike, and the same factors go to produce it, a raw recruit to the rank of bee-men may be as capable of its treatment as the old hands; and the 17th of March is a very appropriate date for one of Irish race and rearing to write his first contribution.

My first observation is that those who have been discussing it have been misusing terms, especially that of price. The price of honey is exactly that amount of money it will fetch in the market. The question as to the relative usefulness as food on the table and for other uses is one of value and not price. The third point is the relative cost of production of the comb honey and extracted. The price of honey is exactly that sum which the honey-producer can get for his product, be it either in the comb or out of it. The fact of what ratio the price of the two sorts bears to the other, is independent of cost of production, except as it affects their production; and nutritive value is very little thought of by most consumers. In fact, price is without doubt governed by supply and demand, which is dependent upon the manner in which the honey-producers conduct their business; also the habits of the mass of consumers—the public—in relation to the consumption of honey, and the relative growth of consumption and production.

As a new producer, I expect to at least make the effort to cause as much increase in consumption as my product will amount to. I feel sure that this is still easy to achieve in almost every city, for my experience on both sides of the Atlantic is that honey is seldom on the table, or used in the cooking, of those who are quite in position to use it as largely as they choose.

This matter of what foods are eaten in quantity is largely one of hereditary habit. There is no good reason like classes in England Wales eat great quantities of cheese,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will keep your stock in and your neighbor's out. Stray Hogs, Cattle, Horses or Sheep cannot destroy your crops when you fence with the **KEYSTONE.** 25 to 58 inches high. Send for **free book on fence construction**
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EGGS
From Pure B. P. Rocks. Black Minorcas. Light Brahmas—$1.25 per Sitting. Also, will stuff and mount Birds and Animals to order; price. for small birds and animals 60c. and upward.
Plants for sale cheap—Red and Black Raspberry, and Strawberry.
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BIG MONEY IN POULTRY
Pet Stock and Incubators if conducted according to **"The Chautauqua Guide to Big Profits"** just out and sent postpaid with our 1897 Catalogue for 4c to help pay postage, etc. Best eggs and stock cost no more if purchased of us, you can then sell your product to us and thousands others for high fancy prices. We own 300 acres most elegantly adapted to poultry. **CHAUTAUQUA POULTRY & PET STOCK FARM, Box 17 KENNEDY, N.Y**
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For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 24 cents per pound, CASH; or 28 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly,** for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,
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118 Michigan st., CHICAGO, ILL.

BEES QUEENS
Smokers, Sections, Comb Foundation,
And all Apiarian Supplies cheap. Send for FREE Catalogue. E. T. FLANAGAN, Belleville, Ill.
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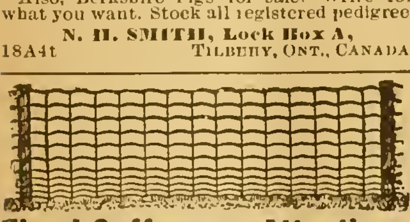
50 Colonies Bees for Sale Cheap.
2-frame Nucleus, with Queen, only $2.
B. P. Rocks, White Leghorns, B. Leghorns, Black Minorca. Buff Cochin, Part. Cochin. L. Brahma, S. S. Hamburg—Eggs from all these, 15 for $1.00.
Also, Berkshire Pigs for sale. Write for what you want. Stock all registered pedigree.
N. H. SMITH, Lock Box A,
18A4t TILBURY, ONT., CANADA.



Flood Sufferers—Attention.
Those who are so fortunate as to have **Page** fence in use will usually find it intact after the waters subside. If the posts are washed out, it will need re-stretching, and you should notify us at once. See April "Hustler" for latest flood test.
PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

while in Ireland they eat scarcely any. To change this fact and cause the Irish, who could afford it, to eat much more cheese, would take great energy, good persistent business methods, and a great quantity of first-class cheese. It is just the same with the consumption of honey everywhere—it must be kept before the people in attractive shape and good quality; must be forced into homes where it has not been used, and consumption increast in this way, or the price of both kinds will fall.

Weld Co., Colo. W. A. VARIAN.

* * *

Sudden Change in Temperature.

Bees in this locality went into winter quarters in fairly good condition, excepting perhaps a little light in stores, owing to the early frost last fall, and having a mild winter they probably consumed more. Well, everything went well until April 18, which was very warm, and the bees were out in full force, when along about 2 p.m. the wind arose and blew so hard that what bees were any distance from home could not reach their hive that night, and before morning the wind shifted in the north, the temperature dropt to 10 degrees above zero, the weather remaining cold for four days. I noticed wherever a poor bee could find shelter, under lumber, pieces of bark, etc., I could find from three to five dead bees, which materially thinned out each colony, and there has been only one day to this date that they have been out to amount to anything.

Bees are chiefly wintered on the summer stands and in the Hilton chaff hive. The principal source of honey is from white clover and basswood, with golden-rod and willow-herb later in the season. There is no provision made here for bee-pasturage; there are thousands of acres of land that have been lumbered and burnt over, which could easily be seeded to sweet clover, or some other honey-producing plant, with a small expenditure. The counry is too new for there to be much fruit for the bees to "destroy!"

I have only one fault to find in the Bee Journal, and that is, it doesn't come often enough. L. T. CHURCHILL.

Cheboygan Co., Mich., April 27.

* * *

Heavy Loss in Wintering.

I have sustained a very heavy winter loss, having lost a little over 50 per cent. of my bees. I now have about 70 colonies with which to commence the season. My bees were nearly all wintered on the summer stands without protection. Ten colonies which were well protected came out in splendid condition. I have lost a good many by spring dwindling.

I am not discouraged by my loss, but shall try to make the bees that I have left do nearly as much as all would have done. Everything looks favorable for a good season in this locality at present.

Success to the American Bee Journal. It never fails to arrive on time, and is full of good reading. G. F. TUBBS.

McKean Co., April 25.

* * *

Bees Lively on Maple and Elm.

I put the rest of my bees out April 15—no dead ones in the last lot. The weather was cold until the 21st; on the 20th it was 18 degrees above zero in the morning; yesterday it was 75 degrees at noon. Bees are lively on maple and elm. Their old honey is mostly granulated, and most of it is being thrown out. We commenced spring seeding day before yesterday; it was not fit before. C. THEILMANN.

Wabasha Co., Minn., April 23.

* * *

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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., May 1.—Fancy white. 11@12c.; No. 1, 10@11c. fancy amber, 9c.; No. 1. 7c.; fancy dark, 8c.; No. 1. 7c. Extracted. white, 5@7c.; amber, 5@6c.; dark, 4½c. Beeswax. 25@27c.

Stocks are working down, but there is no improvement in price. The season for comb honey is drawing to a close. Any one intending to market in the cities should do so now.

New York, N. Y., May 1.—White comb, 10@11c.: amber, 8@9c.; dark, 6c. There is a fairly good demand for comb honey yet, and it keeps coming in small lots Extracted is quiet at unchanged prices. The demand for buckwheat extracted has ceast, and no more sale for it. Beeswax is quiet at 26@27c.

Detroit, Mich., May 1.—Fancy white comb, 11@12c.; No. 1, 10@11c.; fancy amber, 9@10c.; No. 1, 8@9c.; dark, 7@8c. Extracted, white, 5@6c.; amber, 4@5c; dark, 4c. Beeswax, 25@26c. Demand is slow for honey, and plenty in commission house.

Kansas City, Mo., May 1.—No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber. 10@11c.; fancy dark, 9@10c. No. 1 dark. 8@9c. Extracted. white, 5c.; amber, 4½c.; dark, 4c. Beeswax, 25c.

Cincinnati, Ohio, May 1.—Demand is slow for all kinds of honey. Comb honey, 10@14c. for fair to choice white; extracted, 3½@6c. There is a fair demand for beeswax at 22@25c. for good to choice yellow.

Minneapolis, Minn., May 1. — Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber. 8@9c.; fancy dark, 7@8c.; No. 1 dark. 6-7c. Extracted. white, 6@7c.; amber, 5@5½c.: dark. 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Philadelphia, Pa., May 1.— Fancy white comb, 12-13c; fancy amber. 8-9c.; No. 1, 8c.; fancy dark. 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3½-4c. Beeswax, 25c.

Season is getting over for comb honey—very little demand. Extracted in good demand.

San Francisco, Calif., May 1.— White comb. 9-10c.; amber, 5-7c. Extracted, white, 5½c.; light amber, 3½-4c.; dark tule, 2¾c. Beeswax, fair to choice, 24-26c.

St. Louis, Mo., May 1.— Fancy comb. 12@@13c.; No. 1 white, 11@11½c.; amber, 9@10½c.; dark, 7@8½c. Extracted, white, in cans, 6@7c.; amber, in barrels, 4@4½c; extra, 5c.; dark, 3@4c. Good demand for barrel stock—comb slow sale. Beeswax, 23@23½c.—prime finds ready sale at 23½c.

Albany, N. Y., May 1. — Fancy white, 12-13c.; No. 1, 11-12c.; fancy amber, 9-10c.; No. 1. 8-9c.; fancy dark, 7-8c.; No. 1, 6-7c. Extracted. white, 5-6c.; dark. 3½-4c.

Demand is all that could be expected at this season. Stock on hand small.

Indianapolis, Ind., May 1. — Fancy white 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Boston, Mass., May 1.— Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Buffalo, N. Y., Apr. 16. — Very fancy honey, mostly 10 and 11c.; fair to good, from 9c. down to 7 and 8c; very poor, dark etc., 5-7c. Very little, if any, extracted in the market to quote. Write us before shipping.

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BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.

CHAS. DADANT & SON.

Philadelphia, Pa.

WM. A. SELSER, 10 Vine St.

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WILLIAMS BROS., 80 & 82 Broadway.

St. Louis, Mo.

WESTCOTT COM. Co., 213 Market St

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S. H. HALL & Co.

Milwaukee, Wis.

A. V. BISHOP & Co.

Boston, Mass.

E. E. BLAKE & Co., 57 Chatham Street.

Detroit, Mich.

M. H. HUNT, Bell Branch, Wayne Co., Mich.

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WALTER S. POUDER, 162 Massachusetts Ave

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Crimson Clover	.55	.90	2.00	3.50

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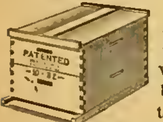

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37th Year. CHICAGO, ILL., MAY 13, 1897. No. 19.

Contributed Articles

Bee-Escapes and Entrance Feeders.

BY S. A. DEACON.

Your readers must often be struck with, and beginners be befogged by, the almost strange want of unanimity, amounting in many cases to extreme difference of opinion, prevailing amongst the score or so of experienced apiarists who so kindly furnish replies to the leading questions—under "Question Box"—concerning matters upon which one would hardly suppose such divergence of opinion could possibly exist. Who would imagine, for instance, that there could be such totally opposite views entertained by such men of large and varied experience and close observation as, say, Dr. Miller, in the States, and Samuel Simmins, in England, concerning the utility of bee-escapes? On the one side they are lauded sky-high, as one of the most welcome of *modern* aids to honey-production, while on the other we have so high an authority as the author of "A Modern Bee-Farm"—one of England's most experienced, observant and intelligent apiarists—condemning them in no measured terms; saying on page 129 of the new edition of his book:

"Some 15 years since they were much in vogue, but fell into disuse, as practical bee-keepers found they preferred, when once having raised the super, to clear it away at once; and it is not a little surprising to find several advanced apiarists themselves entrapt into thinking there is anything to be gained by re-adopting this old and discarded fad!"

And again, on page 139, Mr. Simmins says: "One of the most forcible arguments that can be used in condemnation of super-clearers is, that the bees, once frightened by the lifting of the super, will not hesitate to break countless pin-holes in the beautiful cappings."

This is very emphatic and decided language, and must necessarily "give us pause"—or, at least, should do those who are not yet provided with bee-escapes—ere we conclude to make another entry on the wrong side of our ledgers. Are super-clearers, then, as great a boon and as indispensable an addition to the bee-keeper's already too numerous traps, as many would have us to believe? or are they unduly crackt up and destined soon *again* to become "an old and discarded fad?"

AN ENTRANCE FEEDER DESCRIBED.

Mr. R. C. Aikin, in one of his Presidential addresses at the Colorado convention, said: "We should be as willing to give as to receive." Certainly! Will Mr. Boardman, acting on this suggestion, kindly detail the construction of his entrance feeder? and concerning which Editor Root made the unaccountably strange statement in Gleanings, that he "*believed it unnecessary to explain this feeder.*" The same article, accompanied with a miniature wood-cut of the feeder, was reproduced in the Bee Journal April 23, 1896. On page 301 (1895), there also appears a small paragraph about it, most tantalizingly lacking any information concerning its mode of construction. Why this reserve? An entrance feeder is by far the most satisfactory kind of feeder there is. With it there is no necessity for lifting off shade boards and covers, and so exasperating the bees, whilst a mere glance up and down the rows shows at once where feeders require replenishing and where not. Further, an entrance feeder is delightfully simple and easy of construction. Were these facts more widely known, and directions for their make given in one or two leading bee-papers, I feel certain that all other methods of feeding would soon be discarded. With your permission, then, I will describe an entrance feeder which I myself am using, and which probably, in the main, differs very little from that of Mr. Boardman; for the principle is necessarily the same, tho they may differ in some minor details:

Into a 2-inch section (or 1⅞ may do as well) tack a bottom, made thus: Take 3 pieces of stuff ½-inch square (Fig. 2) for the frame of said bottom, and complete it by tacking 2 pieces of 2-inch section over this frame. First cut the side pieces away ⅛, as shown in Fig. 1, so that all comes flush. Also cut away ⅛ on the top side of the projecting horns, or else they won't fit into the ⅜ entrance. Before tacking this bottom in the section, tack a piece of wire gauze over the upper surface, as shown in Fig. 2, and a little block or bit of cork at B to support it, so that it don't sag. The lid, or top, is of ⅜-inch stuff tackt also inside the section. It has a hole to admit a metal screw-cap fruit-jar. Cut out the center of the metal cap, leaving only ¼-inch rim, or ledge. Cut 2 discs of cheese-cloth to fit snugly inside this, first pouring a

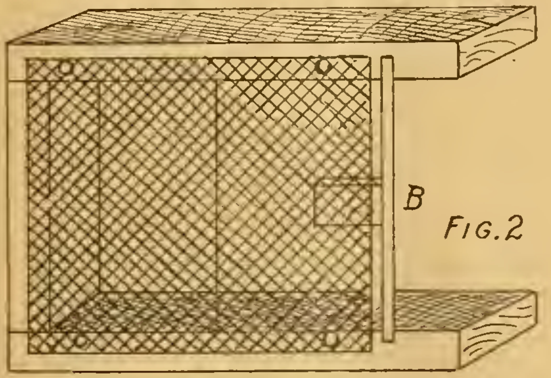

FIG. 2

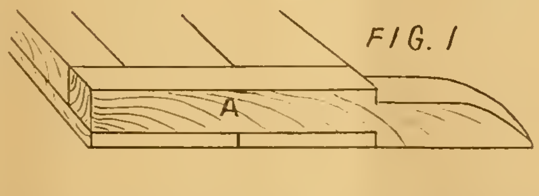

FIG. 1

little hot wax around the ledge to fix the cloth nicely. (If the syrup should run through too fast, another layer of cloth can be added, or a piece laid a-top of the guaze in the box.)

Fill the glass jar with whatever feed you use; screw on the cap, invert smartly and insert in the box, the jar of course resting on the wire gauze. Have the hole sufficiently large for the jar to pass in and out comfortably, and keep all snug by twisting a few turns of string, or rope yarn, or what not around the jar at its junction with the lid. Have a spare jar in starting feeding, already filled, so that upon taking an empty jar out you at once pop a filled one in. Don't mind the sacrifice of the jar's lid; the feeder is worth far more than the cost of the jar—say 4 cents—and will last forever; only be sure to give the little box two good coats of paint, and it will last as long as the jar, *altho* the bulk of it consists only of a section.

The making of these boxes is just fun. The only tools required are a compass, saw for the round hole, a center-bit, a pocket-knife and a tack-hammer; and your wife's or your mother-in-law's scissors to cut the discs of cheese-cloth. (Only don't be attempting to cut out the top of the metal cap with them, or you may get your own "top" disfigured!) The latter job I effect with an old jack-knife. You must use your ingenuity in this matter.

In conclusion, I would remark that of all the feeding methods and devices I have ever tried, none came anywhere near up to this as regards comfort—to self and bees—rapidity and ease; and I am sure it will be found to be "a boon and a blessing" to every bee-keeper who may occasionally require to feed.

The easiest way I have found to fill the jars is by having the syrup in a kerosene can. The can has a little funnel-shaped spout underneath, just under the screw-cap. This is shut or opened by simply raising or lowering the wooden stick or plunger—see Fig. 4. It is placed on a wheelbarrow, and the spout of course projects from the front of the barrow.

Where a large center-bit is at hand—say 2-inch—the construction of the floor of the entrance feeder, which I have been endeavoring to describe, may be facilitated by cutting a large hole out of the center of a piece of ½-inch stuff, and tacking a bit of tin underneath, as shown in Fig. 5.

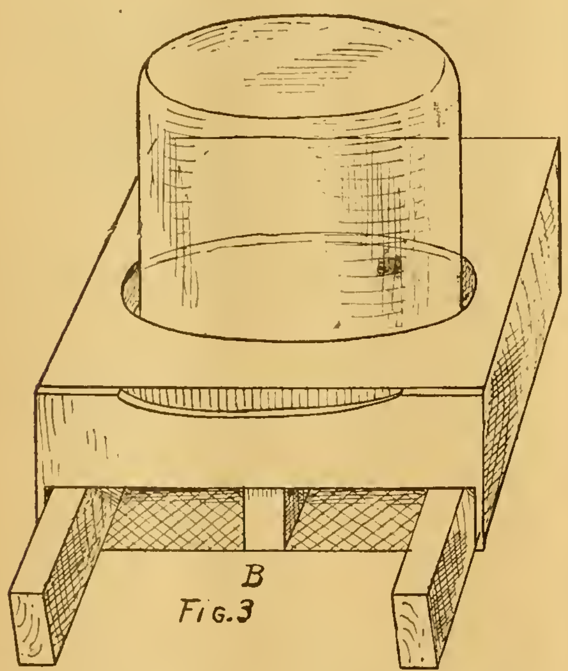

Fig. 3

N. B.—As shown in Fig. 3, a piece of one side of the section must be cut away to allow the horns to project. Bevel away the floor of the box between the horns, or it will reduce the width of the entrance by ½.

LATER.—In the detailed description of my entrance feeder I omitted to state that as the atmospheric pressure is liable to bulge the cheese-cloth (which fits in the metal cap's rim) inwards, and so prevent it from coming in close contact with the wire gauze, or with the extra layer of cheese-cloth (should such be found necessary) lying a-top of the gauze, then cut a disc of wire gauze and insert it, too, in the rim, over the cheese-cloth, *i. e.*, on the contents side.

Again, instead of rolling a collar of string or rope yarn, or what not around the jar, so as to close up the juncture (caused by the jar fitting in comfortably-loose) between the jar and lid, I have found it preferable to tack a square of glazed quilting neatly over the top of the box, cutting the hole in it so much smaller than that in the lid itself that it fits tightly around the jar, so that it draws up when the empty jar is pulled out, and is forced down when the full one is inserted; this keeps all tight and snug. And as to the extra cost—well, as according to such eminent authorities as Dr. Miller, quilts, too, are fast becoming another "old and discarded fad," there's sure to be a lot of it in most apiaries lying around. Personally, I find no use for quilts in summer—they are a distinct nuisance. I never yet found one in a hollow tree!

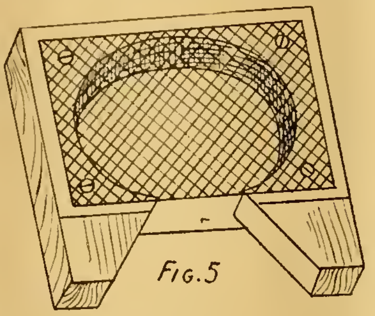

Fig. 5

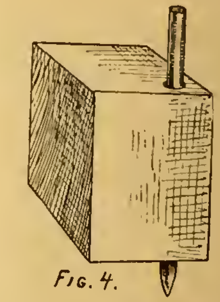

Fig. 4.

I have been pouring over old volumes of the Bee Journal in hopes of finding some really descriptive account of an article so often and so highly commended as the Boardman entrance feeder, but alas! all in vain. On page 301 (1895), "Gleaner" tells us just enough about it to set us longing to know more, but his mention of it is as studiously free from constructive details as is that reproduced from Gleanings on page 265 (1896). True, Dr. Miller, I remember, tells us somewhere that Mr. Boardman's feeder is "made of tin," but, lawks! that don't help us very much; it was all right as a first installment, and reminds one of the old cookery book recipe: "First catch your hare." Well, we've got our tin, now what next, Doctor, dear? Will you, or some one, kindly continue the description, and let us know all about it?

South Africa.

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The National Bee-Keepers' Union.

BY THOMAS G. NEWMAN.

In reply to the editorial on page 248, I desire to say: If the writer intended to be honorable, he would not attempt to misinterpret the quotation from my Report, and force it to mean something different from what it says.

His statement that the work in the line of the defense of bee-keepers is "practically all done" shows that he is not posted. That assertion is utterly at variance with the facts. There never was more demand for help to defend the pursuit of bee-keeping than NOW.

He emphatically asserts that "the old Union is no longer needed to defend the pursuit of bee-keeping in its right to existence," and adds, "That was settled some 10 years ago." Such a statement is an insult to the intelligence of bee-keepers generally, and is totally at variance with the facts in the case. It is not yet 8 years since the Union fought the battle in Arkansas, and wrung from the Supreme Court of June 22, 1889, the first recognition from that high tribunal of "its right to existence." Since then its battles have been many, and several suits are on the dockets in the Courts this very day. Facts cannot be annihilated by bombastic denial of their existence.

If only one side was presented to bee-keepers in the matter of "amalgamation" last winter, "and that the wrong side"—what was the Bee Journal and Gleanings doing on the other side for months? To admit that I did more real work in that time, in less than 4 pages of my "Annual Report," than both of the editors and others did in scores of pages of the above-named periodicals for three or four months, is inadvertently giving me credit for vastly more than was intended. That writer overstept the mark, and "put his foot in it."

The insinuation that I am now doing nothing but "putting in time guarding a little pile of money" is contemptibly mean and untrue. The history of the National Bee-Keepers' Union has been a PROUD RECORD OF WORK DONE, and I feel sure that my friends everywhere will each resent such an insinuation as a personal insult. Its meanness is only exceeded by its ingratitude.

The National Bee-Keepers' Union decided by an overwhelming vote that it would not consent to amalgamation—nor to the use of its funds for a purpose for which they were not created. That matter was settled three months ago. Why not accept the situation? If the new organization has work to do in another line, let it go about it, and accomplish something to its credit. Instead of fighting the "Union," which for 13 years has been laboring FOR THE PURSUIT, let these fighters go right to work and fight the contemptible adulterators of honey. Bring them up standing before the law, as the Union has done with those who tried to destroy the pursuit by attacking its very right to exist. That is what the Union was created for, and just what it has done, and is doing.

For the past three years, because of the exceedingly hard times, the Advisory Board decided not to collect any "DUES" from the old members. This the editor misconstrues into squandering the funds by the General Manager. Could anything be more unjust and contemptible? It was to the credit of the members of the Board that they unanimously agreed to remit the "Dues" in these times of financial depression and scarcity of money.

Again, while I am writing on this subject, allow me to ask, Why the new organization should bemean itself by stealing the name of "Bee-Keepers' Union?" While there are many disadvantages in doing this, there can be no advantage unless it intends to try to steal its FAME as well as its name. Better be honest and find a new name. There are many excellent ones yet unused.

Towards any new organization created to "fight adulteration and fraud," the National Bee-Keepers' Union has due respect, and will co-operate in every possible manner, if it can do so without being assaulted, misrepresented and reviled. To try to create any other impression is unjust and unreasonable.

San Francisco, Cal., April 27.

[Whenever any person publicly calls us dishonorable, an insulter, "bombastic," "contemptibly mean," and practically says we are a liar, a thief, etc., as the General Manager of the old Union does in the foregoing, why we feel like simply asking, "Couldn't you have thrown your boomerang a little harder?"

We perhaps ought to remind Mr. Newman that his official acts and utterances, as General Manager, are quite proper subjects of criticism. But we will not lower ourselves to the mire of offensive personalities, and thus admit we have no arguments to defend our side. Just now, however, we prefer to let Mr. Newman's reply, as above given, stand upon its merits, or demerits. Though it is no little satisfaction to add right here, that Prof. Cook, in a letter to us dated April 28, says of that same editorial, on page 248: "*Your editorial is all right.*" (Italics ours.)—EDITOR.]

Some Important Spring Work.

Sometimes much harm is done by opening up hives on cool days early in the season, thus letting the brood get chilled. While care should be taken in this direction, it is still not best to let the bees always entirely alone. Here are two colonies, one of them very weak, the other comparatively strong. Left alone, the weak one will be about at a stand-still for a long time, and the stronger one, being queenless, will not be at a stand-still, but will for some time be on the decline in numbers, until the brood from its newly-reared queen begins to add young bees. The case is still worse if the colony is *hopelessly* queenless, that is, it has neither eggs nor young brood from which to rear a queen. In that case it is only a question of time, and not a very long time, when it will become utterly extinct.

Having two such colonies, the inexperienced with but few colonies and anxious to increase the number, will be very likely to give a frame of brood to the queenless colony, providing it has none, feeling that it would be a serious misfortune to allow the number of colonies to become less. But a lessening of the number of colonies doesn't always mean a lessening of the number of bees, and in the early part of the season, especially, it is more important to have a large number of bees than a large number of colonies. If the strength of individual colonies be kept up it is not hard to increase the number of colonies later on.

So the wise bee-keeper will look into his colonies, find which are weak and which are strong, which have queens, either by seeing the queen or by seeing brood and eggs present, and if he finds one colony queenless will unite it with some other not very strong in bees, but having a good queen. Even if the queenless colony has brood of its own from which it is rearing a queen, queen-cells perhaps being sealed, it will be a good many days before such a queen will commence laying, and as the bees are every day dying off from old age the strength of the colony will be greatly reduced. The queen in the weak colony is at the same time doing little laying, because there are not bees on hand to take care of the brood. Unite the two colonies and the queen will at once increase her laying, and you will have more bees for the harvest than if you had left the two separate. Even if your sole object is to increase the number of colonies, it is still policy to unite, for later in the season you have more bees to make new colonies from.—Homestead.

The Proper Management of Swarms.

BY PROF. A. J. COOK.

There is hardly any matter connected with bee-keeping that is more important than a wise management at the swarming season. We used to hear a good deal about dividing bees, or artificial swarming, but in these latter days I think very few attempt any increase except by natural swarming. I have tried both methods for many years, and have come decidedly to the opinion that it is much better to let the bees swarm naturally. I would take all proper precautions to subdue the swarming-fever, or impulse, but think it is never best to practice division as we used to do in the olden time.

MR. J. F. M'INTYRE'S PLAN.

I need not say that Mr. McIntyre is one of the most successful bee-keepers not only in California, but in the United States, or even the world. Indeed, he is one of the largest bee-keepers, though I think he has never reacht Capt. Hetherington's rank, or even that of Harbison, when he kept so many bees here in California. Mr. McIntyre aims to keep about 600 colonies, and he has things so conveniently arranged that he is able to do a large part of the labor without outside assistance. Mr. McIntyre works almost entirely for extracted honey, and notwithstanding the large size of his apiary I think his average for all the years since he has kept bees in California, has been well toward 100 pounds per colony, per year, while in the best years it has reacht several hundred pounds per colony for the entire apiary. While Mr. McIntyre has an excellent location, I doubt if it is better than a good many others in this favored clime.

As I stated above, Mr. McIntyre aims to keep only about 600 colonies. If because of sales, or for any other reason, his number is below this at the beginning of the season, he allows his bees to swarm until he reaches the desired number of colonies. It is hardly necessary to say that Mr. McIntyre keeps his queens' wings clipt, for he is a very intelligent apiarist and aims to save all the work possible. After he has secured the number of colonies that he wishes, he proceeds as follows:

If a swarm issues, he takes the brood away from the hive to a large extent and divides this among other colonies which may not be as strong as he would like, and then suffers the swarm to go back to its old hive. This replacement of the brood with empty frames or frames of foundation, usually destroys the swarming impulse and thus the colony is in good condition to go into the surplus chamber as soon as the honey season opens. In this way Mr. McIntyre says he has no difficulty in starting in the season with the number of colonies he desires, and all strong and ready for full business.

Of course, Mr. McIntyre does everything he can to put off the swarming impulse. This is done by seeing that the second story of frames is in position early in the season so that the bees shall have plenty of room to store. There is no doubt but by thus strengthening the colonies so that they are very strong at the dawn of the season, he secures no small gain, and it is very likely due to this, in great part, that he receives such large yields.

REMOVING THE QUEEN.

I have known good bee-keepers to remove the queen at the beginning of the harvest in order, as they thought, to prevent swarming and secure a larger crop of honey. If they were told that it was unwise to thus take away the power for increase they would answer that it takes 21 days to rear worker-bees, and by this time the honey season would usually be past, and so all the energy and food required to produce this brood was just so much loss. Of course, if there were but one period of nectar-secretion and this only lasted three weeks, there would doubtless be some weight to this argument. But in most sections there is a succession of flowers, and the season is rarely as short as three weeks. It is to be said, however, that some very excellent bee-keepers have practiced this method for some years, and have met with good success. Mrs. L. B. Baker, of Michigan, practiced this method for some years and her success was quite phenomenal. The advantage claimed for this is that it destroys the impulse for swarming, throws all the energy into honey-production, and thus gives large returns without any serious drawbacks.

KILLING THE QUEEN AT TIME OF SWARMING.

Another way that some of our bee-keepers have practiced, is to clip the queen's wing, and as soon as a swarm issues, while the bees are still out, destroy all the queen-cells but the largest (this is not difficult when there are so few bees in the hive); kill the old queen and let the swarm return. In this way increase is prevented, the colony is kept at maximum strength, the swarming-impulse is destroyed, and the whole apiary becomes requeened. Mr. Robertson, of Michigan, who will be remembered as one of Michigan's best apiarists, was loud in his praise of this method. In this case no increase is permitted.

THE HEDDON METHOD.

It is hardly necessary to describe the Heddon method of managing swarming. Mr. Heddon arranged his system with reference to securing an increase of one only from each colony. I do not think Mr. Heddon clips his queens' wings, but his system can be practiced just as satisfactorily, and I am sure with a great saving of time if the queen's wing is clipt. As soon as the swarm issues a new hive with combs (if available, or else with foundation or starters in the frames) is placed on the old stand exactly where the old hive stood. If the queen's wing is clipt, she is caught, caged and put into this hive, and the swarm allowed to come back, which, of course, they will do. At nightfall the queen is liberated. In case the queen's wing is not clipt, the swarm is hived in this new hive on the old stand. The old hive is placed close beside the new one, with the entrance in the opposite direction. Each day this old hive is turned around a little until the seventh day when it is close side by side the other hive, and its entrance in the same direction. At nightfall, on the seventh day, or early on the eighth day, before the bees fly, this hive is carried to some other part of the apiary. Of course, the old bees, or those that are now gathering in the fields, will all go back to the old place, and will enter with the other colony, where the swarm was hived. Thus this will become very strong and ready for splendid work. The old colony will become so depleted of bees that when the first queen comes forth on the eighth day, she and the bees will proceed at once to destroy all the other queens, so that very rarely will this colony attempt again to swarm. This is surely a good method where we wish to just double our colonies or to get one swarm from each old colony.

It might be thought better to destroy all queen-cells but one, and save this work and manipulation. In this method, however, we are apt to overlook some queen-cell, which need not trouble us in case of using the Heddon method, for we let the bees destroy the queen-cells.

Again, I think the work is less than any other method I have ever tried. I always had such good success with this method that I feel like recommending it.

Los Angeles Co., Calif., April 29.

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Why Swarms Desert the Hive.

BY C. C. PARSONS.

On page 506 of the Bee Journal for 1896, W. J. E. seems to be in what Smith called "a predicament," and, among other questions, askt Dr. Miller: "Do you know what made them leave?" Dr. Miller puts two of the best witnesses on the stand, and they give such conflicting testimony that one would think they did not know anything about the subject under consideration. Then the good Doctor advises shade and ventilation—good things to have in August; says, also, that he has had very little practice in hiving natural swarms.

I began my scientific course on the jump in swarming time; that is, in running down a contrary (?) swarm. We hived it every day for nearly a week, in the new-fangled hive. (Dr. G. W. Bistline, of Texas, was my teacher and comrade.) We ran this swarm of bees all over the country, and cut down several trees, trying all the while to put three pecks of bees into a two-peck hive. We finally put them into a box-hive a mile from home, and they went to work all right. The Doctor was so disgusted with them that he gave them to me, and they gave me a bad case of bee-fever.

This being my first practical lesson in scientific bee-culture, I studied it well, but several years past before I had learned it thoroughly. I practiced the entrance-guard method, as recently mentioned by Mr. Skaggs on page 164, and at one time I thought it was the end of trouble in hiving swarms, but later I found that it, too, was a delusion—bees won't be *made* to do. Sometimes they would leave the queen and return to the old hive, or enter a queenless hive in the apiary.

Since 1890 I have not lost a single swarm after it had been hived. When a swarm is to be hived, I put into the hive an empty comb, placing it near the middle, filling the hive with frames of foundation or starters. (Be sure that the hive is large enough to hold the bees.) If the hive be thus arranged, you need not worry about shade or ventilation any more than you would if the bees were already at work in the hive.

I use the 10-frame Simplicity hive, with fixt bottom-board, entrance ⅜ inch, and full width of the hive; and when I hive a swarm I do not give any upward ventilation. I am not as anxious as I used to be about getting every bee into the hive. When I see the queen enter I go about my business and do not fuss with the bees. They will be better satisfied if you will let a portion of them cluster upon the outside till work has been begun within. Jefferson Co., Ala.

⁂

Non-Swarming Bees—A Swarm-Catcher.

BY C. DAVENPORT.

There has been considerable said about the possibility of breeding out the swarming habit, and many kinds of non-swarming devices have been made and tried. But I do not believe anything really practical in this line has as yet been invented, and, in my opinion, it is very doubtful if there ever will be, though I hope I may be mistaken in this, for there is no doubt that if the swarming habit could be bred out without affecting the working qualities of the bees, or any device made that would accomplish the same result, it would be of great benefit to most apiarists. As to breeding out the habit, I have faith that considerable can be done in this line, tho from experience I know that progress towards this end is very slow.

In producing comb honey, instead of allowing natural swarming I prefer dividing, or artificial swarming, and I can by this means obtain better results with less work; but in order to do so, one has to thoroughly understand his locality in regard to the time and character of its honey-flows, as well as many things in regard to the bees themselves. On this account beginners and amateurs will probably have better success by allowing natural swarming, after taking due precaution to prevent it in the way of shade, ventilation, and surplus room.

The principal objection to natural swarming is the trouble of watching for and hiving the swarms, and various have been the means and devices resorted to in order to avert this, probably the most successful of which are queen-traps and clipt queens; but neither one nor both overcome all the difficulty, for a swarm that has no queen with it will often alight, and after hanging for some time, instead of returning to its own hive, will frequently try to enter some other, or divide up and try to enter a number of others, the bees of which sometimes kill the entire swarm if the apiarist is not at hand to prevent it.

For many years I allowed natural swarming, with hundreds of colonies, and I have had many and various experiences with swarms, but I never had a natural swarm issue and leave without first alighting and hanging for some time. I have had a great many swarms issue again a short time after they had been hived, and leave without alighting, but this is deserting instead of swarming. It is usually an easy matter to tell if a natural swarm intends to desert. This may have been explained before, but I do not remember seeing it.

When a natural swarm is hived, if it has a queen it is seldom it will desert the hive before the next day; at least I never knew one to do so; and early the next morning after they are hived, if they intend to stay they will be briskly at work, "weather permitting." On the other hand, if they intend to desert, but few bees, comparatively, will be moving in and out, and in a languid manner. In the latter case, if they are set in a dark cellar for 48 hours they will generally go to work briskly when set out again, and feel contented with the hive they are in. Sometimes less time in a cellar will suffice, altho I cannot say from experience. If the colony was left in the yard, and the entrance and top of the hive closed with wire-cloth, so they would have plenty of ventilation, and left so until they had used up the honey in their honey-sacs, I believe it would answer as well as the cellar plan. Or, with such a swarm, if it has a laying queen and her wings are not clipt, an entrance-guard or queen-trap can be attacht to the hive, which will prevent the loss of the swarm.

HOW TO MAKE A SWARM-CATCHER.

I will describe how to make a swarm-catcher, with which a swarm clustered 30 or 35 feet high can be hived nearly as quickly and easily as when near the ground. It requires only a short time to make one. The material, which is worth but a few cents, consists of a large bag made out of any kind of stout, coarse cloth—such a sack as binding-twine comes in is excellent. To hold the mouth of this sack open, a piece of smooth wire as large or a little larger than telegraph wire is used, which is bent to a circle with the ends overlapping some inches, so that they can be tied together with small wire or stout cord. The mouth of the sack is then securely sewed around this wire hoop. A crotcht stick, the prongs of which naturally or of their own accord stay as far or a little farther apart than the diameter of the wire hoop, is used, and with stout cord the end of each prong is tied to the wire hoop directly opposite each other, so that the sack swings free. Now the open mouth of the sack will always point upwards, no matter at what angle the pronged stick may be held.

The stick below the prongs should be at least 2 feet long, so the small end of a long, light pole can be attacht to it by allowing the two to overlap a couple of feet, and binding them together with two short straps. Different length poles can be used, as they can be attacht or detacht in an instant.

When a swarm is clustered on a small limb, the catcher can be raised up around them, then quickly raised up, which jars the limb so that the whole swarm falls right into the sack. If they are clustered on a large limb, the mouth of the sack can be raised up under them, then by moving it to one side the bees are brought into the sack, and a swarm can be picked right off the body of a tree, for by letting the mouth of the sack catch on the body of the tree below the bees, then gradually raising it up, the bees will be brusht in.

Until tried, no one would believe from what apparently inaccessible places swarms can be secured with one of these, when rightly made. Southern Minnesota.

CONVENTION PROCEEDINGS

Report of the Utah Covention.

The Utah State Bee-Keepers' Association held its regular semi-annual convention in Salt Lake City recently, and an excellent program was rendered. There were between 40 and 50 bee-keepers present, from different parts of the State, and much interest was manifested in the discussions.

After the reports of the committees on foul brood, transportation, etc., the election of officers for the ensuing year was had, with the following result:

President—E. S. Lovesy; Vice-President-at-large, George Hone; Secretary and Treasurer, J. B. Fagg, of Mill Creek; Assistant Secretary, G. E. Garrett.

The following were elected as County Vice-Presidents: F. Schach and B. Christensen, for Salt Lake county; Wm. Peay and John Hawkins, for Utah county; J. A. Smith, for Wasatch; Wm. E. Smith and G. E. Garrett, for Davis; J. Hanson, for Box Elder; O. Falkman, for Weber; T. Bilston, for Juab; C. Canuteson, for Sevier; Mrs. Woodbury, for Washington; George Craner, for Tooele; Henry Bullock, for Cache; and T. R. G. Welch, for Morgan.

PRESIDENT LOVESY'S ADDRESS.

The address of President Lovesy was then listened to, and was in part as follows:

"We can congratulate our bee-keepers that in some respects we meet under more favorable conditions than at any other time in the history of the bee-industry in this State. A satisfactory settlement of two vext questions that have been the cause of much agitation seems about to be realized at last. I refer to the foul brood question and the spraying of fruit-trees while in bloom. Four or five years ago 90 per cent. of the people believed that unless the spraying was done in the bloom no beneficial results would be obtained, but after many experiments and much experience, it has been demonstrated beyond the shadow of a doubt that there is no coddling-moth present when the trees are in bloom. It has been proven in the green-house and in the open air that the moth will not hatch out or lay their eggs at a less temperature than about 60°. It has also been proven that the trees will blossom and bear fruit at a less temperature than this. Thus we find that in some parts of Utah and other countries fruit is grown where the temperature is too low for the moth to live or exist. Even if imported to the places they will die off without doing any harm. Some of the larvæ can be destroyed if the poison is on the apple when the tiny larva hatches out of the egg, but if much success is to be obtained other plans will have to be adopted to catch and destroy the larva and moth, and thus prevent their destructive work.

"In regard to the foul brood question, we believe that after all the agitation there has been on the subject, we have at last obtained a law that can be effectively enforced. It is short and to the point, and we see no reason why it should not result in much benefit to the bee-industry in this State.

"Another very important subject that should be considered by this meeting is the marketing of our products. Honey was brought to this city last fall from Utah county and other points and retailed for one cent a pound less than carload rates which the bee-keepers could have obtained at their own homes, and the expense of hauling could also have been saved. There cannot be any wisdom in a course of this kind; and a much-desired result might be obtained if some plan could be adopted to prevent this as far as possible. If our bee-keepers having honey to dispose of would report early in the season it might, in many instances, be loaded on the cars and be shipt. This would help to prevent the utter demoralization of our home markets. We have heard complaints that if our bee-keepers would or could adopt some plan to try and reach the consumer without rushing on to the market at any price, it would be better for all concerned, as we all know that all products of the farm of every name and nature are being sold, or rather sacrificed, at about half or less than it should be sold for. There can be no prosperity as long as such conditions last. E. S. Lovesy."

HONEY MARKETING AND TRANSPORTATION.

The subjects of marketing and transportation were then taken up. It was shown that honey had been put on the home market at ruinously and unnecessarily low rates. Many suggestions were offered, but the general opinion was that the most successful plan would be to buy up the crop, or that part of it that is rusht on the market. It was finally decided to solicit correspondence from the bee-keepers through the State, with a view to find out the amount of honey and wax, and where located, so as to be able to make shipments, and thus help to prevent the demoralization of the honey market.

FOUL BROOD DISCUSSION.

The subject of foul brood was then discust. Mr. Scott said so far his bees had not been seriously troubled with foul brood. He described the method by which the bee-keepers of Utah county collected their products for shipment. He thought the bee-keepers in each county should be able to adopt some plan to dispose of their products.

Wm. Lincoln gave a recipe for the cure of foul brood, saying it was a matter in which all bee-keepers should take a deep interest. Frederick Schach continued in the same strain.

Pres. Lovesy spoke of the benefit of common salt in the treatment of foul brood, and the disease known as "pickled brood." Some excellent remarks were also made by Vice-Pres. Hone and Messrs. Peay and Hawkins, J. A. Smith, W. E. Smith, and others.

Mr. Bilston gave an interesting account of how he cleansed his bees from foul brood by putting the hive, frames and all into a steam boiler, made of 2-inch plank. It is 2 feet wide, and 8 to 12 feet long, or as may be desired, and any depth. A sheet of iron is used for the bottom, and a piece of heavy ducking with a double coat of white lead is laid between the iron and wood. The boiler is laid on a brick flue, with a grate and door at the front end, and a small chimney at the back.

Mr. Swensen thought this was a good and effective plan to get rid of foul brood. It was safe, and saved everything worth saving.

Mr. Canuteson thought it was poor policy to try to cure foul brood, for, as a rule, the bees were not worth saving, as they usually died in the winter.

THE SPRAYING OF FRUIT-TREES.

The spraying question then came up. Messrs. Faulkman, Hanson, Sanberg, and several others spoke on it. The bees are the fruit-growers' friends, and all were of the opinion that to spray in the bloom after the proof and experience we have had in the matter, was not only throwing money and time away, but would be criminal. The belief was also entertained that in Utah there would be no more serious trouble on this subject, as past experience had proven the folly of such a course.

Mr. Lovesy said that the apple-trees came into bloom about the latter part of April, and when the moth lay their eggs they hatch out in about a week, and yet no moth-larvæ are found in Utah prior to the first to the third week in June, as a rule, thus proving that no eggs are laid until about a month after the trees were in bloom; and while spraying may wash the pollen out of the blossom, and thus destroy the fruit, it can do no possible good.

Mr. Hawkins askt if it would be possible to organize a Honey Exchange. Remarks were made on the subject by Messrs. Fagg, Butler, Scott, and others, but no definite conclusion was reacht.

HONEY-ADULTERATION AND FRAUDULENT DEALERS.

The subjects of honey adulteration and fraudulent dealers next came up. The bee-keepers were warned not to allow themselves to be caught or robbed by the latter class of people.

Messrs. Hone, Fagg, Scott, Stuart, and others showed conclusively that glucose was one of the main causes of the ruinously low price of pure honey. Incidentally it was exprest that if sufficient capital could be raised to organize a Honey Exchange it might be productive of much good to the industry.

Mr. McRay gave a long and interesting address on those subjects. He said that adulteration was practiced in the East to such an extent that the people could not tell what they were buying—honey or something else. It is disgusting to the bee-keepers and to the general public, and it works a serious injury to the bee-industry.

It was decided that a general movement should be made by all bee-keepers in the United States, to petition the General Government to pass a law against the adulteration of honey; and a resolution was past by the convention asking the co-operation of the bee-keepers of the country in this matter.

The above report was compiled from notes taken by Secretaries Fagg and Garrett.
E. S. L.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Increasing the Number of Colonies.

1. What is the best way to increase my colonies? Could I put on queen-excluding honey-boards and put one queen in the top story, one in the bottom, and get them both to lay? or would they increase just as fast if they were divided?

2. What is the best way to divide colonies? How many times can they be divided in one season, if working mainly for increase of bees, and the honey crop is fairly good, the bees being in good condition?
Audrain Co., Mo.

Answers.—1. It's somewhat difficult to say just what would be the best way for you to increase. You ought to have a good text-book and study up general principles, then you will be in better position to know just what will suit your case. For many persons, nothing is better than to increase by natural swarming. For some, artificial increase is better, especially when one is anxious for increase, and the bees refuse to swarm. The plan you have in mind, separating the colony into two parts by a queen-excluder, and putting a queen in each may work well, but there are exceptions. You say, "put one queen in the top story, one in the bottom," Now if you mean that literally, having both queens of the same kind, then you might about as well have the two in separate hives from the start.

Perhaps what you mean is, having the old laying queen in one story and letting the other story rear a queen. If you can make a succes of this latter plan there may be quite an advantage in it. But they'll not always rear a queen in the queenless story. The more separation there is between the two parts, the greater likelihood of success. It will help matters if you put a sheet of tin or thin boards over the larger part of the queen-excluder. All may be covered except a row or two of cells around the outside. Leave the old queen in the lower story, and have a small entrance to the upper hive. Two or three days after making the division you may expedite matters by putting a sealed queen-cell in the upper story, or better still, a young queen just out of the cell. When the queen is laying in the upper story, all you have to do is to set it on a new stand, and your doubling is complete.

If you can get the bees to rear a queen in this way, it is better than dividing from the start, for the old queen can go right on laying her full quota, whereas if the colony is weakened by division, the queen's laying will be lessened.

If you are working for extracted honey, you may find it a good plan to put a story of extracting-combs over the lower story, then a third story above containing brood-combs. In this third or upper story the bees will be pretty sure to rear a queen if you give them eggs or young larvæ. Of course there must be an upper entrance.

2. The previous answer tells something as to the best way to divide; and as to the number of times, you can keep on starting a new colony every time you remove the upper story with a laying queen.

Sowing for Bee-Pasturage.

I have about ¼ of an acre of spare ground which I do not want to plant with vegetables. I have just bought four more colonies, and would like to plant something for the bees to work on. What is best to sow? There is very little for bees around here.
J. H. D.

Answer.—Perhaps you can sow nothing that will give more nectar for the amount of ground than sweet clover. But ¼ of an acre of ground cannot be expected to do a great deal, no matter what it contains.

Black and Shiny Bees.

1. The bees are carrying black, shiny-looking bees out of the hives. What is the cause of their turning black?

2. What shall I do to prevent it?
Linn Grove, N. J.

Answers.—1. Bees become black and shiny when they lose their "feathers." A very few such bees may be seen in almost any apiary, but they will be seen in greater numbers when a colony is attackt with bee-paralysis. If they have paralysis, you will notice that they have a peculiar trembling, and their bodies become swollen.

2. Probably there is nothing you can do. Many cures for bee-paralysis have been proposed, but it is doubtful whether any of them do much good. In the South, colonies suffer severely from paralysis, but as far north as New Jersey the loss seldom amounts to much.

An Experience with a Laying-Worker Colony.

As to-day was quite warm and pleasant after a long, cold, rainy spell, I went out to my bee-yard to see how many of my nine colonies of bees were bringing in pollen, and I saw that eight of them were coming in loaded. While watching the other one I saw drones in front of the hive. This colony has been carrying out dead bees every warm day during the past winter, and I have scraped out large quantities of them with a stick. When I discovered those drones I immediately unpackt them and opened them up for investigation, and found a good double handful of drones and about twice as many workers, and the two center frames with patches of drone-brood, larvæ, and eggs, some cells containing as many as three eggs. I immediately said, "How do you do, Mrs. Laying-Worker?" and resolved to adopt heroic treatment at once.

I took each frame and examined it carefully, and placed it in another hive, but of course I found no queen or laying-worker. I cleaned the hive out nicely, and carried them away quite a distance, and shook and brusht every bee into the air, altho it was not very warm, and I lost some bees by it. I cut the brood all out of the two frames, and placed them next to the outside of the hive; took a nice frame of brood and eggs from another hive, and placed in the center, and am now awaiting developments.

1. Did I do the right thing?
2. Will they try to rear a queen from the eggs in the frame I put in? or will they be apt to try it from some of the scattering eggs left in those outside frames?
3. I am rearing some queens in an observatory hive in the house, which are due to be out on the 12th, and I shall give them one of these. If she mates with one of those drones, will the result be the same as if mated with any other drone?

The "Old Reliable" comes every Thursday as regular as clock-work, and I can hardly put it down until I have read every word, advertisements and all. I would not think of keeping even a few colonies of bees without it. May it live long and prosper, and be as great a blessing to its worthy editor as it is to its readers.

Weeping Water, Nebr., April 9.

Answers.—1. Treatment still more heroic would probably have been more profitable. It would have been less trouble to break up the colony, giving the whole of it to some colony that needed strengthening, putting the hive under the hive of the colony to be strengthened, or else dividing the contents of the hive among two or more. Especially is this advisable in early spring. At this time a colony having bees enough to cover four or five frames will make progress increasing, whereas if you divide it in two parts each part will seem to stand entirely still for weeks. So instead of taking brood to help the laying-worker colony, if you increase by so much the force of some rather weak colony with a good queen, you will be able later on to take a colony from it and be farther along than by keeping up the name of a large number of colonies in the first place.

2. They will be likely to use the brood you gave them, even if they use some of the drone-brood as well.

3. Opinions differ as to the virility of drones from laying-workers, some saying they are as good as any, others that they are not. In any case, queens reared early in the season, before drones abound, are not likely to prove the best, and may be superseded while comparatively young. Which makes another argument against trying to tinker up a colony that has laying-workers.

In general, it isn't worth while to fool with a colony of laying-workers. They are old, worn-out bees, not worth much anyhow.

A Beginner's Questions.

1. Is it the old or new queen that goes out with the swarm?
2. Do you clip one or both wings of the queen?
3. If drones are killed, how is it best accomplisht? How repress the rearing of them?
4. When sections are not finisht in the fall flow of honey, can the bees be fed and cause them to finish them? If so, do you advise this plan?

I have five colonies; they are hybrids, and I wish to Italianize them the first of May. I want gentle bees and good workers.

Edgar Co., Ill.

Answers.—1. The old queen goes with the first swarm, and a young queen with each after-swarm.

2. A bee has four wings, a large one and a small one on each side. It is sufficient to cut the large wing on one side, and better than to cut a little from all. L. A. Aspinwall reports that he has cut off about an eighth of an inch from the wings on both sides of virgin queens, and finds they become fertilized all right, showing they can fly with that amount cut from both sides. (He does this to secure fertilization from his own drones rather than to have them fly off to a distance.) But if the same amount be cut away from one side only, it throws them out of balance when they attempt to fly, and they tumble to the ground. If you cut off just the one large wing, take off all you can conveniently. With only one wing cut away, the defect is scarcely noticed, so that if you care greatly for the beauty of your queens, you will cut only one wing. But the very fact that such clipping is not so readily noticed makes it objectionable to one who has much work in the apiary, so I prefer to cut off all I can conveniently from both wings on one side, then I can tell at a glance whether a queen is clipt or not.

3. You can kill drones by means of a drone-trap in front of the hive, catching them in it and then destroying them. A better plan is to slice the heads off the drone-brood after it is sealed. Much better than either is the plan of having no drone-comb in the hive. Fill every frame full of worker foundation. But bees are sometimes so desperately in earnest about rearing drones, that they will work a few drone-cells in every possible place, and will even build some cells on worker base. G. M. Doolittle thinks it better to allow them one or two square inches of drone-comb in the hive, and this satisfies them, and gives the bee-keeper no trouble to find it, so he can slice it every two or three weeks.

4. Most bee-keepers decide that it is not easily practicable, and not profitable.

Management of Swarms at Out-Apiaries.

I have just noticed that you have been hauling bees to out-apiaries. That's just what I will do to-morrow, but only three colonies. I will take them away some 20 miles, where there is a lot of basswood. The man, where I want to put them, is the owner of a large farm, and would not like to do a thing among them, and that's just what I like, for I want to manage them myself. Would it be wise, or best, to use the Alley trap at swarming-time, and look after them every Saturday, and when I find a colony that had swarmed, at the right time to cut out cells, and put that hive on a new stand, and have no after-swarm? I will give them more room in the brood-nest than at home.

E. B. K.

Answer.—You can probably make your plan work. You don't give very full particulars, but if I understand you rightly, you intend to put part of the bees and the queen that you have found in the trap in a new hive, leaving them on the old stand, putting the old hive on a different stand. If you leave in the old hive barely enough bees to keep the brood from chilling, there will be little likelihood of swarming, even if you cut out no queen-cells. You may do well to brush at least half the bees off the combs, and would risk little in brushing off two out of every three combs, for the weather will most likely be warm, most of the brood will be sealed brood, and it does not chill easily.

Buying and Shipping Bees.

Mr. A. must buy bees and have them shipt 200 miles, from Mr. B., who will send him by express, c. o. d., a good 2-frame nucleus with laying queen; and at the same time a 10-frame hive nailed and containing 8 brood-frames, also nailed, and having 1-inch starters. Or, instead, he will send him a pound of bees and a laying queen by express, c. o. d., and by freight, a 10-frame hive, nailed and containing 10 empty extracting-combs. Which should A. buy?

E. B.

Answer.—That's a little too hard for me, but I'll make a guess at the answer, trusting that if it isn't orthodox some one will set me right. You don't say so, but I suppose you mean that the first hive is to be sent by freight as well as the second, and of course in each case the hive will be shipt earlier than the bees, so as to be ready for use on their arrival. The hives are sent by freight to save expressage. The extracting-combs sent with the second hive are simply empty brood-combs.

With my present light, if I were in A.'s place I think I'd take the first lot. It will cost more for expressage to get a nucleus than a pound of bees, but he has a small colony in full working order to start with, it being understood, of course, that the two frames are well filled with brood. Altho they will have to build their own comb, they will be gaining every day in strength, while the pound of bees will be losing strength every day for three full weeks before a single young bee is added to the number.

White Clover Seed.—We have quite a quantity of White Clover Seed on hand that we will send you at a bargain. A little of it goes a good ways. It usually retails at 25 or 30 cents per pound, but we will *mail* you 2 pounds for 40 cents, or for sending us *one new* subscriber to the American Bee Journal for a year.

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

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Editorial Comments.

The Apis Dorsata at Home.—The A. I. Root Co. say in Gleanings that they are arranging with a missionary to India to experiment with Apis dorsata in its native clime. Hives and all necessary equipments will be sent with the missionary, Mr. W. E. Rambo, who expects to return to his work at Damoh, India, in September.

Now, that is a sensible way to find out whether or not "the giant bees" can be domesticated. If it is found upon trial that they will live and be a success in hives in India, then it will be time enough to bring them to America. Bee-keepers can afford to await and see the result of the Root experiment. In the meantime we can all hope that good may come from it.

◆

Bumble-Bees in New Zealand.—The following is reported in a foreign paper, referring to the value that bumble-bees have proven to the clover seed crop of New Zealand:

> "The bumble-bees have been a great success in Canterbury (New Zealand), and clover seed has been *exported* to England the last three or four years. It is estimated that the clover seed crop is worth 30,000 pounds sterling per annum to this Province, and this is entirely due to the successful importation of the bumble-bee."

And yet there are those who would destroy all the bees if they could, not realizing their importance in the fuller fertilization of blossoms in field, orchard and garden. Let's keep such information before the public, until it ceases to undervalue the twofold work of the bees.

◆

The Drawn or Deep-Cell Foundation.—It would be really laughable were it not so very regretful to note the various receptions the idea of drawn foundation has met with, and that by bee-keepers, or would-be-thought bee-keepers, even before they have given it a trial. After awhile, we think these same blusterers and more noisy ones will be seeking some convenient hole to crawl into, and thus try to have "progressive" bee-keepers forget their hasty condemnation of what promises to all fair-minded people to be one of the advance steps of modern apiculture.

Referring to this matter, Gleanings for May 1 gives the following, which shows

HOW HISTORY REPEATS ITSELF.

The little opposition that has been stirred up against the new drawn foundation is not so unlike the opposition that was urged against railroads in China, where, after using one awhile, they tore the rails up, as the cars "disturbed" the repose of their ancestors. (The new drawn foundation seems to have disturbed the "repose" of a few bee-keepers.)

When railroads were first suggested in this country, so great a man as Daniel Webster "proved" in Congress that a railroad train could never go up grade, could never be stopt within 20 miles on a level, and never on a down grade; that it was not safe, and yet he lived to see them stopt in their own length at any point.

The English bridge builder, who built the great Victoria bridge over the St. Lawrence river, declared that the proposed suspension bridge at Niagara would never hold its own weight up, that it was not safe, and "proved" it—by riding over it in a car while on his way to dedicate his own bridge further on.

In these latter days a few have tried to make out that the new product is going to ruin the bee-keeping industry, and, according to their opinion, they have "proved" it too. As prophets they can look backward better than forward. But railroads and suspension bridges have come to stay, and so has the new drawn foundation.

The opposition that drawn foundation has so far received reminds us of the dog-and-moon story. The little yellow dog tried to annihilate the moon by barking at it. Of course all know the result. The moon simply continued in its course. So will the drawn foundation.

How ridiculous it is for those who have sold and used comb foundation for years to come forward now and condemn the new kind, when it is made from the same kind of pure beeswax as the old, and has been proven by those who have tested it, to be no more objectionable than ordinary comb foundation, when it comes to eating comb honey produced with it. Nothing but jealousy or ignorance could possibly be the cause of most of the foolish opposition to it.

We hope that the new drawn foundation will prove all that its promoters anticipate for it, and that like many other valuable inventions, it may be among those things that have helpt to make the pursuit a greater success than it ever could have been without them.

◆

Dr. Besse's Sweet Clover Case.—Many are interested in the outcome of Dr. Besse's sweet clover case, in Delaware Co., Ohio. Here is his last report concerning it, dated May 5:

> EDITOR YORK:—As I promist to keep you posted in regard to my trial, and as I am getting letters of inquiry from all over the country in regard to it, I take the present opportunity to say that my case will not come up for trial at this term of court. The pleadings have just been completed, and the case now stands at issue for the first time. I shall be compelled to take testimony in different parts of the State, and may be from other States, and prepare the case for trial at the next term of court. H. BESSE, M. D.

For the benefit of the many new subscribers that have been added to our list recently, we would say that Dr. Besse's case grew out of the destruction of a field of sweet clover as a noxious weed by the township trustees, for which act the Doctor sued for damages, claiming that his bees were thus deprived of securing a crop of honey last year. We, like others, await with interest the result of the suit.

◆

End-Spacing Old Frames.—Gleanings gives the following directions to make end-spacing frames out of the old-style Hoffman frames:

> Next week we shall cut off the top-bars and put on the end-spacing staples to all the frames in use in our apiary. The projections of the top-bar are ¾ inch, and we shall therefore have to cut off about ¼ of an inch from each end. To do this most expeditiously we have constructed a tray without bottom, 4 inches deep. The length of this tray, *inside* dimensions, is 1/16 inch longer than the outside dimensions of the Langstroth-Hoffman frame. The width should be the same as that of the hive used, and in our case that of an 8-frame hive. This frame is mounted on legs of ⅞-inch stuff, 2 feet long, the legs being braced. We now have a topless table 2 feet high. The length of the projection of the top-bar to end-

spacing Hoffman frames is ⅜ inch; therefore, the thickness of the ends of the tray should be a scant ⅛ inch.

We are now ready to cut off the top-bars of all the old-style Hoffman frames in the apiary. We set the topless table near the hive; shake the bees off the frames in front of the entrance, and slip them one by one into the tray or topless table. If the table has been made right, the frames will just slip between the ends of the tray, and the top-bar projections will stick over ¼ inch. A saw now cuts them off just even with the end of the tray at both ends. After the staples are put, the frames are ready to be put back into the hive. The other hives are then treated in a like manner. Usually it will be found advantageous to have an assistant, because two can work to better advantage.

◆

Hurrah for the Wisconsin Legislature!—April 28, we received the following very interesting communication from the tireless worker for the interests of Wisconsin bee-keepers—Mr. N. E. France—in reference to what the State Legislature did for bee-keeping in Wisconsin the past winter:

EDITOR YORK:—The long red-tape work is over, and as the Legislative Committee of our bee-keepers' societies, I now can report that all of the Bills I have labored hard all winter for are now laws in full force, viz.:

1st. Sweet clover—no longer on the list of Wisconsin noxious weeds.

2nd. Foul Brood Bill past, and appointment of Foul Brood Inspector made. [Mr. Farnce is the Inspector.—ED.]

3rd. Against the adulteration of honey (in the Food Laws of 1897).

Many times each Bill seemed doomed; each time I would go to Madison in its interests, and get the Bill on its feet again, with the results now as stated above.

N. E. FRANCE.

It seems to us that Legislature deserves the personal thanks of every bee-keeper in the State of Wisconsin. While the passage of those Bills may appear on their face to be mostly class legislation, yet the fact is they are wholly in the interest of right and justice to all.

The American Bee Journal wishes to take this opportunity to thank all who were instrumental in securing the passage of the Bills mentioned, and only hope that other State legislatures may soon see the wisdom of following Wisconsin's good example along the line of anti-adulteration and foul brood.

Encyclopedia for Beeswax.—Some time ago we offered a splendid work of eight large volumes, called "The New Standard American Encyclopedia," having nearly 4,000 pages, and over 300 colored maps, charts, and diagrams. Size of volume, 2 inches thick, 8½ wide, and 11½ long. As per that offer, last publisht on page 186, the eight volumes were offered by freight for only $19 cash. We can furnish a set or two at that price, bound in half morroco; or will exchange a set for 75 pounds of yellow beeswax, delivered at our office. You would be more than satisfied with the Encyclopedia, and a set of such books ought to be in every family for reference.

◆

The Horse—How to Break and Handle.—This is a pamphlet of 32 pages, giving complete instructions for breaking and educating colts, teaching horses to drive, and for use under the saddle, together with many instructions which have never before been publisht, and which are the result of the author's experience covering a period of 20 years. By Prof. Wm. Mullen, with whom the editor of the Bee Journal is personally acquainted. Price, postpaid, 20 cents; or given as a premium for sending us one new subscriber to the Bee Journal for the rest of the year at 60 cents.

◆

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

The Weekly Budget.

MR. FRANK MCNAY, the Wisconsin "honey king," living in Columbia county, wrote April 30: "Bees are in excellent condition." He has apiaries in three counties.

MR. J. H. MARTIN, of Los Angeles Co., Cal., provides a very interesting and helpful apiarian page in each monthly number of the Rural Californian. Referring to the new drawn foundation, he makes this prediction: "We predict that the new deep-cell foundation will surely win its way, and become a staple article in the economy of the bee-hive."

MR. M. STEVES, of British Columbia, writing on April 27, said:

"I think a good deal of the American Bee Journal. This has been a rather poor spring for bees, rather cold since from about the last of February. The fruit-trees are in blossom now."

HON. GEORGE E. HILTON, of Newaygo Co., Mich., is doing a wholesale business in his bee and supply line this spring. Tuesday, April 27, he shipt a carload of supplies to an out-apiary of 100 colonies, and to supply his customers in its vicinity. "George" had over 200 colonies to begin with this spring, and a good season means tons of honey for him. So says The News, a local newspaper.

MR. D. L. DURHAM, of Kankakee Co., Ill., writing us May 3, said:

"Bees have wintered well here on the summer stands. The loss, if any, is very light, from starvation. Everything is favorable so far for a good year for honey. Bees work strong when days are warm enough for them to fly."

MR. GEO. HONE, of Utah Co., Utah, when sending us his dollar membership fee for the New Union, said:

"You may put me down every time as one who wants to see adulteration stopt. I hope the American Bee Journal will continue in its good course, in exposing swindlers, and making it hot for adulterators. We are having splendid weather. Bees are in excellent condition—I never saw them better at this time of the year."

MR. HARRY LATHROP, of Green Co., Wis., wrote us as follows May 1, which shows how good at least one Wisconsin bee-keeper feels:

"We Wisconsin bee-keepers are feeling pretty good, because we have succeeded in getting the foul brood law that we wanted. And we are glad to know that we have one of the best men for the place in the whole country to act as inspector—Mr. N. E. France; and if it had not been for his untiring efforts, the law would not have been past."

MR. WM. MCEVOY, the Official Foul Brood Inspector of Ontario, Canada, is a very busy man. He is besieged not only by bee-keepers in the Dominion, but by many on this side the boundary line. He recently received a letter from a bee-keeper in a Southern State, saying that the Governor of that State, by his request, had introduced a recommendation into his late message to the legislature, looking to the passage of a foul brood law. That surely speaks well for one Governor. May his tribe increase! Well, the bee-keeper then requested Mr. McEvoy's help in preparing a Bill to submit for passage. He replied that the Wisconsin Bill, past recently, and publisht in full on page 232 of the Bee Journal, is "the most perfect one in the world, and one that every State and Province should copy after."

Mr. McEvoy wrote a long article for the Australian Bee-Bulletin for December, 1896, on the cause and cure of foul brood, and at the last meeting of a bee-keepers' association in Australia, he was given a vote of thanks for his most excellent article.

In a letter dated May 3, Mr. McEvoy has this to say regarding Canadian honey prospects, and the Buffalo convention:

"The honey and fruit crops of Canada never, no never, promist so large. We will have a grand meeting at Buffalo next fall, and I hope to see a great turn-out of Canadian bee-keepers at that convention. I intend to drum out the whole lot, if I can. The choice of place, and the officers to manage the business, could not have been better."

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10 No. 1 E Dov. Hives, 8-frame	$7.50
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Best Polisht Sections $2.50 per M.
Other Goods in proportion.
Let me make an estimate on your wants.

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Apiarian Supplies, Bees, Etc.
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APIARY—Glen Cove, L. I.

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Try my Queens. Golden Yellow or Leather color, Untested, 75c.; Tested, $1.25; Extra-Tested, $1.75. **W. J. PERKINS,**
19A2t RED BUD, ILL.

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Beeswax Wanted for Cash
Or in Exchange for
Foundation—Sections—Hives or any Other Supplies.
Working Wax into Foundation for CASH A Specialty.
☞ Write for Catalog and Price-List, with Samples of Foundation and Sections.

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AUGUSTA, WIS.
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—A GENUINE—
Egg Preservative

That will keep Hen's Eggs perfectly through warm weather, just as good as fresh ones for cooking and frosting. One man paid 10 cents a dozen for the eggs he preserved, and then later sold them for 25 cents a dozen. You can preserve them for about **1 cent per dozen.** Now is the time to do it, while eggs are cheap.

Address for Circular giving further information—

Dr. A. B. MASON,
3512 Monroe Street, - TOLEDO, OHIO.
Mention the American Bee Journal.

General Items.

Watering Bees.

I have tried several ways of watering bees, and find a common stone crock the best. Cut a board ½ inch smaller than the diameter of the crock, then bore several ⅜ holes in it, and fill each hole with a wick. Put more boards under it, when water-soakt, so as to keep it a little above water level. MICHAEL HAAS.

Wintered Well.

I am well pleased with the Bee Journal, and can hardly wait until each number comes. I have 41 colonies of bees, which wintered in the cellar, and lost only one colony. Bees are late here compared with other places, of which I read in the Bee Journal. ELLIS E. SNYDER.

Rensselaer Co., N. Y., April 15.

A Swarm Notifier.

I am always glad to get my Bee Journal. I enjoy reading Dr. Miller's answers to questions. I am a beginner, started with 4 colonies in the spring of 1896, and have 8 now. I had only one swarm in 1896. The bees didn't do much good. I think they will do better this year. I have had three swarms this spring, and all are doing well.

I have found a way to fix my colonies to know when they swarm, without watching or paying any attention to them. I made it myself, on account of having to watch them through swarming time, as I have unfortunately got the sort of bees that swarm. I will give my plans for publication if it will be of any use to bee-keepers. I have no patent on it, nor don't know that I ever will have. It is done by electricity, but by proper instructions any one can put them up. J. H. WILLIAMSON.

Polk Co., Tenn., April 29.

[Yes, send on your description, Mr. Williamson, and we will publish it.—ED.]

Combs "Bee-Space Apart."

I am askt the following question, to be answered in the Bee Journal:

"On page 178, J. E. Pond explains his method of getting bees to work in supers, but I cannot make out just how far apart from center to center he spaces his frames. He says he spaces frames just bee-space apart. Will he please tell us what "bee-space" is? He says he gets that bee-space so and so with a 10-frame Langstroth hive, but without having a Langstroth hive or knowing its width, how is one to find the bee-space? INQUIRER."

In reply to the querist, who asks my method of spacing frames "bee-space apart," I will say that I use the "Simplicity-Langstroth hive," 10-frame; in one side I put a ½-inch thick dummy, filling the side of the hive completely. In the space left, I fill in the 10 frames, spacing evenly apart. It is absolutely and positively necessary that the frames should hang plumb and true, else the cells in one side may be deeper than in the other, and the effect spoiled. I find it necessary to space at the bottom as well as at the top of the frames, in order to make them hang as true as they ought. J. E. POND.

Report for 1896.

I can hardly wait from one week to the other until I receive the American Bee Journal. It comes every Friday morning. I am taking three bee-papers at present, and expect to add another soon. If I had taken one or more last year, I might have had more honey to sell, and more bees, and in better condition. I have only 14 colonies of the common black bees, but they did good work last year. From 8 colonies, spring count, I took over 300 pounds of nice comb honey in one-pound sections. At the same time I increast, by natural swarming, to 14, but might have doubled if I had had the necessary means. I use 8 and 10 frame dovetail hives, and winter the bees on the summer stands. I am ready for them now, by having on hand 35 8-frame hives, also an extractor.

I sowed Alsike clover seed this spring, and intend to sow sweet clover. I also intend to Italianize all my colonies. The bees at present are working on the bloom, and are very busy.

Your scheme of exposing fraudulent dealers and adulterators suits me "to a t." Since I have read your editorials, my eyes have been opened. In many grocery stores I see those glass tumblers filled with a syrup to keep a little *honey-comb* from granulating. When people get the genuine honey they will not buy that adulterated stuff. May the "Old Reliable" live long, and be used for exposing adulterators and other frauds. JOHN W. ALBERTSON.

Luzerne Co., Pa., April 8.

Poor Season for Honey in 1896.

I did not have very good results from the bees. I got about 4,000 pounds of broken comb honey last year. I have about 125 colonies now. Last year was a very poor year for honey. J. Z. RHODES.

Wadena Co., Minn., April 28.

One Hundred Pounds Per Colony.

I have now 150 colonies, and they have begun to swarm. I have several colonies that have stored over 100 pounds of honey each this month—since the 3rd, when I put the first super on. W. H. H. LAURENCE.

Monterey Co., Calif., April 22.

Selling Bogus Honey.

Some time this spring there were two men canvassing Monmouth—a town 12 miles from here, of about 1,200 inhabitants—selling extracted honey. They had been canvassing other towns before they came here. They went to a hotel and took rooms, then ordered sugar. One groceryman said he sold $12 worth himself to them—they ordered $12 worth of white sugar sent to their hotel, where they had it melted up into syrup, then they cut up strips of nice honey and filled a pail with it—syrup and a few bits of honey—and put a ladle in it that held about a pound, and went from house to house selling it as honey. They sold a great deal of it, and then past on to another town. If it had been called sugar syrup and a little honey, it would have been all right, I think; but it should not have been called honey.

Mr. Axtell thinks the prospect is that we will have a good honey-year, as the white clover, after so much moisture and rain, is abundant, and bees are strong. Wells are most full of water, and cellars, too. MRS. L. C. AXTELL.

Warren Co., Ill., April 17.

Practical Suggestions to Beginners.

EDITOR YORK:—The American Bee Journal is a source of knowledge to me, and I have taken time to analyze the matter and find that the reason it is a source of knowledge is the fact that it is a careful record of actual experience—the best of all knowledge. With this conception of its mission, I wish to offer to beginners a few suggestions pluckt fresh from the field of actual experience.

The first rough place in the road that attracted my attention was, what I needed. I finally made my selection, and here are the things that I actually did need, and made no mistake in sending my money for:

1. The American Bee Journal. 2. A good veil. 3. A smoker. 4. A Queen-Clipping Device.

The latter named is "worth its weight in

Finest Alfalfa Honey!
IT SELLS ON TASTING.
The Honey that Suits All Who Buy It.
Low Prices Now!

We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 7½ cents per pound; 2 cans in one case, 7 cents; 4 cans (2 cases) or more, 6½ cents. The Cash MUST accompany each order. **Fine Basswood** Flavor Honey at same price; also in 270-lb. barrels.

☞ A sample of either honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

GEORGE W. YORK & CO., 118 Michigan Street, CHICAGO, ILL.

Page & Lyon Mfg. Co. New London, Wisconsin,

Operates two sawmills that cut, annually, eight million feet of lumber, thus securing the best lumber at the lowest price for the manufacture of

Bee-Keepers' Supplies.

They have also one **One of the Largest Factories** and the latest and most-improved machinery for the manufacture of

Bee-Hives, Sections, Etc.,

that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polish on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equipt with best machinery, all combine to enable this firm to furnish the

Best Goods at the Lowest Prices.

Send for Circular and see the Prices on a Full Line of Supplies.

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Special Agent for the Southwest—E. T. ABBOTT, St. Joseph, Mo.

Mr. Abbott sells our Hives and Sections at Factory Prices.

That Queen-Clipping Device Free!

Works Like a Charm.

The Monette Queen-Clipping Device WORKS LIKE A CHARM. With it I have clipped 30 queens, all in one day, when examining my bees. WM. STOLLEY, Grand Island, Nebr.

Couldn't Do Without It.

I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now.

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Send us *just one new name* for the American Bee Journal a year (with $1.00), and we will mail you the Queen-Clipping Device FREE of charge. Or, the Queen-Clipping Device will be sent postpaid for 30 cts. But why not get it as a Premium by the above offer? You can't earn 30 cts. any easier. Almost every bee-keeper will want this Device.

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NEVER—
TOO LATE
To Start Right.

We have decided [to induce our patrons to get a start in the **best Italian Bees**, or to change their stock], to sell not over 2 Nuclei to any one address.

A 3-Frame (Hoffman) **Nucleus and Warranted Italian Queen, for $2.75.**
Just running over with Bees.

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All Bee-Supplies at Factory Prices.
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Yellowzones
For Pain and Fever

An honest, efficient remedy for all Fevers, Headaches, Colds, Neuralgia, Grip, Rheumatism, etc. A general service remedy that'll please you, OR MONEY REFUNDED.

"It's a rare pleasure to find such a remedy."
"Too much cannot be said in praise of them."

1 Box, 25c.; 6 Boxes, $1; most orders are $1.

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Made on the best lines, of the best material known to the art.
HEATS WITH HOT WATER
Entirely automatic; will hatch every egg that can be hatched. Simple, durable, effective. Send 2 stamps for illustrated catalog No. 59.
THE INVINCIBLE HATCHER CO.,
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"Queens Given Away."
Gray Carniolans and Golden Italians.

We will give a fine Tested Queen (either race) to all customers ordering 6 Untested Queens, and a fine Select Tested Queen to all who order 12 Untested Queens at one time. The Queens given away will be sent to customers in August.

Grade and Prices of Bees and Queens	April May June	July Aug. Sept.
Untested Queen	$ .75	$ .65
Tested "	1.50	1.25
Select Tested Queen	2.50	2.25
Best Imported "	5.00	4.00
One L Frame Nucleus (no Queen)	.75	.50
Two " " "	1.50	1.00
Full Colony of Bees " (in new dovetailed hive)	5.00	4.00

We **guarantee** our Bees to be free from all diseases, and to give entire satisfaction.
Descriptive Price-List Free.

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JUST ARRIVED!

My second carload of Goods from **The A. I. Root Co.** has arrived, and I am in shape to fill all orders promptly at their catalog prices. Send for my 36 page catalog; also list of Goods you will need, and I will make you special prices on early orders.

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0D9t **FREMONT, MICH.**
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FREE A booklet, handsomely illustrated, describing **Nebraska**, her farms and the opportunities there for young men and farm renters to become farm owners Mailed without charge on application to P. S. EUSTIS, General Passenger Agent, C., B. & Q. R. R., Chicago. Ill. 14A8t
Mention the American Bee Journal.

gold." This quotation is sometimes used without it's full meaning, but this time it is literally true. I could not tell just whether I wanted unclipt or clipt queens, until I heard from Dr. Miller, and when swarming-time came I found it no mistake to have "her majesty's" liberties curtailed, and nothing could be better to accomplish this bit of surgery than the Clipping Device. Then I use it in preference to anything else with which to pick up the queen when swarming.

Some times it is a question in the minds of some whether to use comb foundation or not. There is no satisfaction in the business without it.

There are a few things I purchast which are utterly useless to me, and will be the same to many beginners. One among them is a certain "queen-trap." I gave 50 cents for it. I have never used it once, and never expect to. A good deal of money could be saved if we knew what was real practical, and what was real useful to the manufacturer *only*.

I have had seven swarms up to date, and find it more of a pleasure than a task to have everything ready, and properly house them.

In conclusion, change the name of the New Union to "Combine," or some other good name which has been suggested, and the adulterant will drive members into the fold. I will come myself.

C. S. ROBERTS, M. D.
Johnson Co., Ark., April 24.

◆

Clover Better than for Years.

Bees in this part of the world are in very poor condition. Winter losses have been more than for many years, but what are left are doing very well on fruit-bloom, of which there is an abundance. The prospect for fruit is splendid. White clover is looking better than for years.

W. S. FEEBACK.
Nicholas Co., Ky., April 26.

◆

Against the New Drawn Foundation.

I wish to express myself as not favoring the idea of drawn foundation. In the first place, it cannot be shipt in good condition without trouble. Then it must be necessarily expensive. Lastly, if it would add to the quantity of honey already produced, it would tend to make the honey-product cheaper on the market than it is this year, which has reacht the lowest price yet, and California's crop of 425 carloads were cut off, but will be on hand this year to increase the supply. Parties in our section have gotten no returns from their honey yet, that was shipt to reliable dealers last September. They shipt several carloads of comb honey to different Eastern cities, and the market has been so flooded that they have not sold it all out up to this date. If all the comb honey can't now be sold before it gets candied, and California left out, I would like to ask what the case would be if drawn foundation becomes a success, and California gets her usual heavy crops. These are only suggestions.

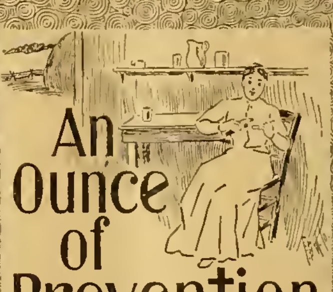
GEO. E. DUDLEY.
Utah Co., Utah, March 19.

◆

White Clover—Adulterators.

On my return to my home (from Florida) April 13, every colony of bees answered to roll call; this is unusual in my experience as a bee-keeper. With what pleasure I walkt around the apiary after an absence of four months, and received a joyous welcome from my little pets, gaily sporting, and carrying in heavy loads of pollen! There is a bow of promise in the bee-keeper's horizon, for beneath our feet is a soft carpet made by the tiny leaves of the white clover; we recognize in it the familiar face of an old friend, absent for five years, but not forgotten, and we extend to it a hearty welcome.

The adulterators workt a very successful game upon our honey-bees, in this city,



An Ounce of Prevention
—you know the rest. In this case it consists in taking a few bottles of that thoroughly reliable life saver
Warner's Safe Cure
After the long winter of inactivity you may find the spring work and the hot sun more than you are able to bear. You may be debilitated; your liver may not be working well; you may have dyspetic tendencies. The above remedy will fix you up and make you feel good as new. It is an infallible cure for
BRIGHT'S DISEASE
URINARY TROUBLES
FEMALE COMPLAINTS
GENERAL DEBILITY AND MALARIA.
It is **entirely a vegetable compound.** Beware of substitutes. There's nothing so good as Warner's Safe Cure.

FINE SECTIONS!
We have the **finest Lumber to be had** for
One-Piece Sections,
all Second-Growth and White as Snow. We have all the **up-to-date machinery**, and are in a position to fill your order promptly and satisfactorily.

Write for Price-List and Sample Section free. Yours &c,

WAUZEKA SECTION CO.,
Apr. 23, '97. WAUZEKA, Crawford Co., WIS.
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Pacific Coast Bee-Keepers!
—*BUY YOUR*—
Dovetailed Cedar Hives
Direct from the Factory. Guaranteed equal to the best goods on the market.
Send for Price-List.
Rawson & Barner, Centralia, Wash.
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If you care to know of its Fruits, Flowers Climate or Resources, send for a Sample Copy of California's Favorite Paper—
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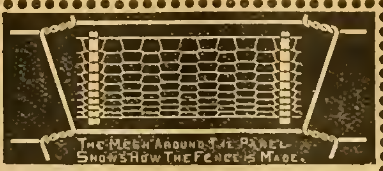
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EXPANSION AND CONTRACTION is what destroys most wire fences. We have a way of completely overcoming this difficulty in the construction of the **KEYSTONE FENCE.** That's one reason why it outlasts all others. Full particulars in our book on fence construction—FREE.

KEYSTONE WOVEN WIRE FENCE CO.,
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EGGS

From Pure B. P. Rocks, Black Minorcas, Light Brahmas—$1.25 per Sitting. Also, will stuff and mount Birds and Animals to order; price, for small birds and animals 60c. and upward.

Plants for sale cheap—Red and Black Raspberry, and Strawberry.

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BIG MONEY IN POULTRY

Pet Stock and Incubators if conducted according to "The Chautauqua Guide to Big Profits" just out and sent postpaid with our 1897 Catalogue for 4c to help pay postage, etc. Best eggs and stock cost no more if purchased of us, you can then sell your product to us and thousands others for high fency prices. We own 300 acres most elegantly adapted to poultry. **CHAUTAUQUA POULTRY & PET STOCK FARM, Box 17 KENNEDY, N.Y**

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Cash PAID FOR Beeswax

For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 24 cents per pound, CASH; or 28 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly,** for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,

GEO. W. YORK & CO.
118 Michigan st., CHICAGO, ILL.

BEES QUEENS
Smokers, Sections, Comb Foundation, And all Apiarian Supplies cheap. Send for FREE atalogue. E. T. FLANAGAN, Belleville, Ill.

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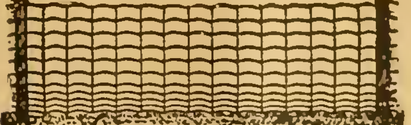
50 Colonies Bees for Sale Cheap.

2-frame Nucleus, with Queen, only $2.

B. P. Rocks, White Leghorns, B. Leghorns, Black Minorca, Buff Cochin, Part. Cochin, L. Brahma, S. S. Hamburg—Eggs from all these, 15 for $1.00.

Also, Berkshire Pigs for sale. Write for what you want. Stock all registered pedigree.

N. H. SMITH, Lock Box A,
18A4t TILBURY, ONT., CANADA.



Luck or Merit?

Our competitors say it's **Luck** that enables us to get all the best Railroad trade, the best farm trade, and all the Parks and Game preserves. Our customers buy the fence on its merits, we sell on its merits, and no one objects to the good luck that goes with it.

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

last fall and winter. A man palmed off as their product a large amount of mixture as honey, which he carried in a large tin-pail with a dipper. He tried a new role; in lieu of having pieces of honey floating in it, it was masht up fine. He canvast the city thoroughly, and sold large amounts of it, as he offered it cheaply, and was not molested in his nafarious calling; he never offered it but once at the same house. He wrote to us, desiring to purchase honey cut from the sections, and shipt to him in tin-pails, claiming residence in the country. We didn't ship. MRS. L. HARRISON.

Peoria, Ill., April 26.

Busy with Swarming.

I have 46 colonies now, and had 21 left from last year, making an increase of 25; but there were more swarms than that, as I put several of them together. I use the 8-frame Langstroth hive, and super that holds 30 one-pound sections. They commenced swarming before the first of March, and I had my hands full of swarms for a few weeks. WM. H. BARTLETT.

Maricopa Co., Ariz., April 23.

Experience with Sweet Clover.

April 1, 1895, I received a trial package of sweet clover, on condition that I report the results. I sowed it the 13th. I first plowed the ground, sowed the seed, and harrowed with light barrow. It did not come up very well, but by August it was 2 feet high; then the drouth came on, and I saw no clover until the spring of 1896, when it made its appearance again, bloomed very well, and the bees visited it every day, but did not seem to store much honey, as it was one of the worst honey-years I ever saw. I had three swarms, and had to feed them to prevent starving.

Sweet clover must be sowed every year, if you want the bloom for your bees, as it doesn't bloom the first year. I planted the seed I bought on separate ground—no bloom for 1897.

I lost six colonies of bees last winter and this spring. There is plenty of fruit-bloom now, and the bees are busy. I can't say much about white clover, as I am looking for a drouth soon. J. L. CRUTCHER.

Franklin Co., Ky., April 23.

A Report.

I have five colonies, having lost one; the mice got in it. I want to transfer three into dovetail hives. Last fall a man had 17 colonies in store boxes and nail kegs, and said he was going to kill them off, so I told him I would take the honey off and save the bees. He said I could have the bees, so I saved three buckwheat swarms. They had only about a pound of honey. I brought them home and fed them 18 pounds of sugar, but the mice killed one, and they wintered on the stand with only a few boards laid on top.

I planted about 30 basswood trees this spring, and sowed 10 pounds of "giant incarnat clover" last spring, and it is coming on finely now. I have woods all around, and maples, poplar, and spicewood, but my bees do not get much surplus except from the buckwheat. I had a swarm that came in June, and went into one of the empty hives on the stand; I got 48 pounds in boxes, and they have lots of honey now.

I could not do without the Bee Journal. There are only a few bee-keepers here, and these have but a few colonies.

HENRY C. MOYLE.

Hunterdon Co., N. J., April 20.

Convention Notices.

Illinois.—The spring meeting of the Northern Illinois Bee-Keepers' Association will be held Tuesday, May 18, at the residence of H. W. Lee, at Pecatonica, Ill. All are cordially invited to attend. Means of conveyance will be at the station for the benefit of those coming on trains. B. KENNEDY, Sec.

New Milford, Ill.

❊ TO BE HUNG! ❊

OUR SHINGLE is now hung out, notifying the public that we are again **ready to ship Queens.** Having greatly enlarged our facilities, can fill orders **by return mail.**

Golden Beauties, 3 Band Italians
Also Silver-Gray Carniolan.

Warranted Queen, 50c.; Tested, 75c. Make Money Orders payable at Caldwell, Tex. Send for Catalog of **Bee-Keepers' Supplies.**

Address, **C. B. BANKSTON,**
11Atf CHRIESMAN, Burleson Co., TEX.

Mention the American Bee Journal.

SMOKERS and FOUNDATION

We do not catalog the Quinby or Hill Smokers this year, but there may be some who prefer these styles. We still have a few, and offer them at these special prices to close out:

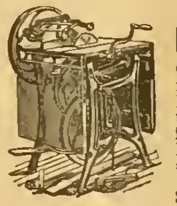
The Quinby—2-inch barrel, single-blast, 35c.; postpaid, 50c. 2½-inch, double-blast, 60c.; postpaid, 75c.

The Hill—3-inch barrel, 40c.; postpaid, 60c.

VanDeusen Thin Flat-Bottom Fdn.

In 25-pound boxes, at only $10.50 per box, while it lasts. Address,

THE A. I. ROOT CO.,
118 Michigan St., - CHICAGO, ILL.



ONE MAN WITH THE UNION COMBINATION SAW

Can do the work of four men using hand tools, in Ripping, Cutting-off, Mitring, Rabbeting, Grooving, Gaining, Dadoing, Edging-up, Jointing Stuff, etc. Full Line of Foot and Hand Power Machinery. Sold on Trial. Catalogue Free.

SENECA FALLS MFG. CO.,
46 Water St SENECA FALLS, N. Y.
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BEST ON EARTH!!

18 years the Standard. The 4-inch "Smoke Engine." Is it too large? Will it last too long? Will save you lots of money and bad words. Send for Circular. 6 sizes and prices of Bingham Smokers and Knives.

T. F. BINGHAM, Farwell, Mich.
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Italian Queens By Return Mail.

Untested, 50c.; Tested, $1.00.
Nuclei, 2 frame, $2.00, including a good Queen.
Bees by the Pound.
E. L. CARRINGTON,
5A17t **De Funiak Springs, Fla.**

Mention the American Bee Journal.

Golden Adel Albino | Texas Queens!

Dr. Gallup says they are the best he has in his yard.

J. D. GIVENS, Lisbon, Tex.

Mention the Bee Journal. 9A26t,

ORDERS filled by return mail or freight for A. I. ROOT CO.'S SUPPLIES. Our choice strain Italian Queens: 1, 2 & 3 fr. nuclei if in a hurry for Supplies, send us your orders. *36-page Catalog Free.*
Jno. Nebel & Son, High Hill, Mo.

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BEE-KEEPERS, PRICES CUT

On FOUNDATION COMB to introduce

Forrest New Method of Sheeting Wax by Automatic Machinery.

Write for descriptive Circular Price-List and Samples. **N. R. FORREST,**
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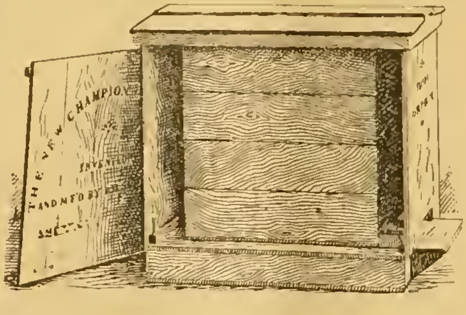

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W. H. COVINGTON,
17A4t MONTEMORELAS, N. L., MEXICO.

For Sale, Bees & Queens

Bees by the Pound, $1.00. Queens, $1.00. Nuclei, 2-frame, with Queen, $2.50; 1-frame, $2.00. Also, **Barred & White Plymouth Rocks, and Silver-Laced Wyandottes Eggs** at $1.00 per sitting of 15. Address,

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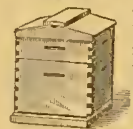

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162 Mass. Ave.,
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BEE-KEEPERS! Let me send you my 64-page Catalog for 1897.

J. M. Jenkins, Wetumpka, Ala.

Mention the American Bee Journal.

Doctor's Hints

By Dr. PEIRO,

100 State Street, ⁂ CHICAGO, ILL.

Fits are of various kinds, produced by different causes, and may be temporary or permanent. The most common are the fits which baby has—a result from difficult teething. Perhaps more epileptics owe their pitiable condition to babyhood spasms than to any other cause. The warm bath for children during teething—especially when cutting their eye-teeth—is excellent. A warm bath, and brisk drying after, should be given to the wee one every night before putting it to bed. It induces a calm, refreshing sleep. If the gums over the tooth are swollen and blue, it had better be lanced—the pain is a trifle and the relief wonderful.

Epileptic Fits are due to a variety of conditions in the brain—more often to a clot of blood due to a rupture of a blood-vessel in the brain, when teething, which has become an irritant there, occasioning local congestion of a portion of the brain, which manifests itself into what most of us know as epilepsy or "falling sickness"—the unfortunate falling down wherever he may be, in room or street, with clincht fists and frothing mouth. I regret to say that the family physician can do little or nothing for these cases. A surgical operation for the removal of the pressure on the brain has of late been advocated, but actual experience from this venture does not yet offer flattering results. Idiocy is the frequent result of epilepsy.

Heart Diseases are of many kinds, due to as many causes. Happily few are of a really serious nature, though very unpleasant, especially to persons of nervous temperament.

Palpitation of the heart may be, and usually is, due to gastric trouble. An overloaded stomach and poor digestion may easily account for it. Sudden fear we know, can produce the result. Yes, and sudden joy may have the same effect.

Fainting at the heart is another of those "all gone" feelings that many experience. The sight grows dim, objects "turn around, and the patient feels utterly collapst. But no serious danger is near. Lie down flat on your back, smell hartshorn occasionally, and drive away the mob of curious fools that generally flock around—helpless nuisances in the way—to exclaim, "Oh, my!"

Pain in the heart is not necsssarily dangerous. Sharp, cutting pains likely indicate a neuralgic condition of its outer covering, or of parts contiguous to it, which proper remedies and a few days' rest will entirely cure.

Shortness of Breath may be proof of another form of heart difficulty, denoting that the heart is weak and cannot pump blood enough into the system to keep it properly supplied, hence the panting and stuffy breathing. This condition frequently attends long sieges of sickness or very debilitating fevers. It is also a common infliction to old age, showing that the machinery of life is well worn and inadequate to its proper function. But a good doctor only is qualified to judge to which of these conditions the difficulty is due. Usually a few ounces of elixir of iron, a teaspoonful after each meal, a wholesome diet, and perfect rest will greatly mend matters, even when a cure is not possible.

DR. PEIRO.

THROAT AND LUNG DISEASES,
DR. PEIRO, Specialist
Offices: 1019, 100 State St.,
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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., May 6.—There is very little honey coming to the market, and fine lots of white comb brings 13c. Yet only a little is taken by the dealers, the season for it being over with the coming of strawberries, which are now plentiful. Extracted brings about late quotations, with beeswax in active demand at 27@28c. for best grades.

San Francisco, Calif., May 6.— White comb, 9-10c.; amber, 5-7c. Extracted, white, 5½c.; light amber, 3½-4c.; dark tule, 2¾c. Beeswax, fair to choice, 25-27c.

New York, N. Y., May 8.—Market quiet at present at unchanged prices. Old crop well cleaned up. Will have new crop within the next week, both comb and extracted, from the south. We expect a fairly good summer trade at fair prices.
Beeswax is weak at 26c.

Detroit, Mich., May 1.—Fancy white comb, 11@12c.; No. 1, 10@11c.; fancy amber, 9@10c.; No. 1, 8@9c.; dark, 7@8c. Extracted, white, 5@6c.; amber, 4@5c; dark, 4c. Beeswax, 25@26c. Demand is slow for honey, and plenty in commission house.

Kansas City, Mo., May 8.—Fancy white, 12@13c.; No. 1, 11@12c.; fancy amber, 10@11c.; No. 1, 9@10c.; fancy dark, 8@9c.; No. 1 7@8c. Extracted, white, 5@5½c.; amber, 4½@5c.; dark, 3½@4c. Beeswax, 25c.

Cincinnati, Ohio, May 1.— Demand is slow for all kinds of honey. Comb honey, 10@14c. for fair to choice white; extracted, 3½@6c. There is a fair demand for beeswax at 22@25c. for good to choice yellow.

Minneapolis, Minn., May 1. — Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Philadelphia, Pa., May 1.— Fancy white comb, 12-13c.; fancy amber, 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3½-4c. Beeswax, 25c.
Season is getting over for comb honey—very little demand. Extracted in good demand.

St. Louis, Mo., May 1.— Fancy comb, 12@@13c.; No. 1 white, 11@11½c.; amber, 9@10½c.; dark, 7@8½c. Extracted, white, in cans, 6@7c.; amber, in barrels, 4@4½c; extra, 5c.; dark, 3@4c. Good demand for barrel stock—comb slow sale. Beeswax, 23@23½c. —prime finds ready sale at 23½c.

Albany, N. Y., May 1. — Fancy white, 12-13c.; No. 1, 11-12c.; fancy amber, 9-10c.; No. 1, 8-9c.; fancy dark, 7-8c.; No. 1, 6-7c. Extracted, white, 5-6c.; dark, 3½-4c.
Demand is all that could be expected at this season. Stock on hand small.

Indianapolis, Ind., May 1. — Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.
Demand is fair for grades quoted, but no demand for inferior grades.

Buffalo, N. Y., May 7.—Strictly fancy comb, 1-pound, mostly 10 and 11c. today. Demand is only fair at present. Other grades range from 5@9c. Extracted, 4@5c.

Boston, Mass., May 1.— Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Cleveland, Ohio, Feb. 20.—Fancy white, 14½@15c.; No. 1 white, 12½@13c. Extracted, white, 6@7c.; amber, 4½@5½c. Beeswax, 22@25c.
There is not very much honey in our market. Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

A. P. A. may, or may not **B. O. K.**
OUR APAry is non-partisan and deals in strictly first-class Italian Queens—Tested, 90c Untested, 65c. 1-fr. Nucleus, 65c.; 2-fr. $1.10 —discount on quantities. M. O. office, Sparta, Tenn. **COOPER & GILLETT,**
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C. C. Clemons & Co., 423 Walnut St.

Buffalo, N. Y.
Batterson & Co., 167 & 169 Scott St.

Hamilton, Ills.
Chas. Dadant & Son.

Philadelphia, Pa.
Wm. A. Selser, 10 Vine St.

Cleveland, Ohio.
Williams Bros., 80 & 82 Broadway.

St. Louis, Mo.
Westcott Com. Co., 213 Market St

Minneapolis, Minn.
S. H. Hall & Co.

Milwaukee, Wis.
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Boston, Mass.
E. E. Blake & Co., 57 Chatham Street.

Detroit, Mich.
M. H. Hunt, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
Walter S. Pouder, 162 Massachusetts Ave

Albany, N. Y.
Chas. McCulloch & Co., 380 Broadway.

Cincinnati, Ohio.
C. F. Muth & Son, cor. Freeman & Central Avs.

Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

The Number of Supers for the Harvest.

Query 48.—My seasons vary from a dead failure up to an average of 85 sections per colony. How many supers of 24 sections each should I have ready before the harvest?—Illinois.

Wm. McEvoy—Three.

A. F. Brown—Two or three.

P. H. Elwood—100 sections per colony.

Dr. A. B. Mason—As many as will hold the "average" in a good season.

Prof. A. J. Cook—If the season seems favorable, the full 85 sections per colony.

Mrs. L. Harrison—I'm not good at guessing. Ask the other fellow.

Dr. J. P. H. Brown—Depend upon your judgment and practical sense to indicated the number.

Jas. A. Stone—I would not have many ready beforehand to lie around and get colored, till I saw the approaching prospect.

Rev. M. Mahin—I would provide an average of 85 sections per colony. You should have ready as many as you will need.

Emerson T. Abbott—That depends upon how many colonies of bees you have. If only one colony, it will not require very many.

W. G. Larrabee—That depends upon how many colonies you are running; if you have 300 or 400 you would better have four; if you have only a few, you would probably not need more than one, for you could get more ready when you found you needed them.

J. A. Green—Unless you are prepared to make up any deficit very promptly, you had better have all you are likely to need in the best seasons.

G. M. Doolittle—Three to each colony; then you will have enough "dishes right side up to catch the porridge" till you can furnish the fourth super, should you need that.

R. L. Taylor—I don't know your circumstances. For myself, I should have about one for each strong colony ready, and the material on hand to prepare others as needed.

J. E. Pond—You ought to be able to answer this question better than can any other person. It will be safe to prepare for a good season, then you will be sure of it if it comes; but if you are not ready for it when it comes, where are you? You must bear in mind the parable of the "wise and foolish virgins."

G. W. Demaree—I keep on hand two section-cases for each hive employed in producing comb-honey. My section-cases hold 28 sections, and my experience is that a strong colony will complete them in the same time they will your 24. This I think is about the real difference between the 8 and the 10 frame Langstroth hive.

Eugene Secor—I should think that would depend upon how busy you are with other work while the honey-flow is in progress. If you have not too much work it would seem to be easy to keep any reasonable number of colonies (up to 100) at work after the first supers are placed. It is well to have at least one super for each colony ready, and if otherwise employed during the honey-season, two.

Dr. C. C. Miller—If you must get your sections ready in advance, the only safe way is to get ready every year for a best season. Eighty-five sections will fill three supers, and part of the fourth, so you must have at least four supers for each colony, and perhaps an extra super for each two colonies, because there will be at the last a good many cases where it will be unsafe to leave without empty supers, but which may not be used at all.

Honey - Clovers !

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
Alsike Clover........	.70	$1.25	$3.00	$5.75
Sweet Clover (white).	.70	1.20	2.50	4.75
White Clover...	.90	1.60	3.75	7.00
Alfalfa Clover........	.60	1.00	2.25	4.00
Crimson Clover.......	.55	.90	2.00	3.50

Prices subject to market changes.

Add 25 cents to your order, for cartage, if wanted by freight.

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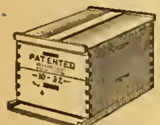

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Francis Danzenbaker, Medina, Ohio.
Care The A. I. Root Company.

EVAN'S Improved Machine for Sheeting Wax.

This machine produces a continuous sheet of uniform thickness and any width desired directly from the melted wax. No lapping or welding done in this proces. This machine is a rapid worker, simple in construction, easily operated either by hand or steam power, and price within reach of any supply dealer. Correspondence solicited. Sample sent on receipt of order and postage. Patent allowed March 18, 1897. **THOS. EVANS, Lansing, Iowa.**

I ARISE

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Five Colonies..... 25 00
Ten Colonies...... 45 00
1 untested queen. 1 00
6 " queens 5 50
12 " " 10 00
1 tested Queen... $1 50
3 " Queens. 3 50
1 select tested queen 2 00
3 " " Queens 4 00
Select tested queen, previous season's rearing . 4 00
Extra Selected for breeding, THE VERY BEST.. 5 00
About a Pound of BEES in a Two-frame Nucleus, with any Queen, $2.00 extra.

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OUR LARGE GUIDE for '97 just out. Something entirely new. 100 pages. Printed in finest colured work. Contains everything pertaining to Poultry in full. **PRICES REDUCED** on 1st Prize Winners and Eggs. Postpaid on receipt of 15 cents, if you write now. JOHN BAUSCHER, Jr., Box 94 Freeport, Ill.

10A13t *Mention the American Bee Journal.*

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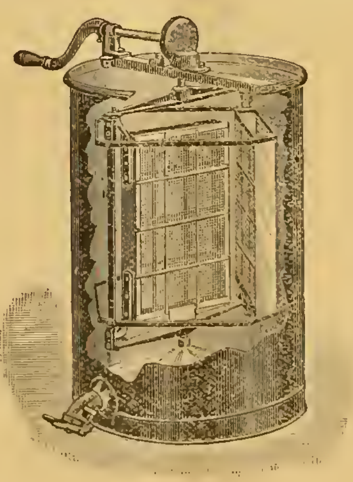
No. 1 Snow-White.		No. 1 Cream.	
500 for	$1.25	500 for	$1.00
1000 for	2.50	1000 for	2.00
2000 for	4.75	2000 for	3.75
3000 for	6.75	3000 for	5.25

If larger quantities are wanted, write for prices.

Price-List of Sections, Foundations, Veils, Smokers, Zinc, Etc., Sent on application.

6A35t **MARSHFIELD MFG. CO., Marshfield, Wis.**



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37th Year. CHICAGO, ILL., MAY 20, 1897. No. 20.

Contributed Articles

Winter-Case Arrangement for Bees.

BY PERCY O. ORTON.

I forward to-day illustrations of a winter-case which I made and am using. It works to perfection. It is 13 feet long, 2½ feet wide, and 2½ feet deep, and holds 10 two-super Dovetailed hives (8 frames each). The hives stand one inch apart in the case; the entrance is 7/16x12 inches, and enters a space in the case 1½x2x14 inches. A block 1x1½x2 inches is placed between each hive at the entrance, and a strip ½x2 inches by 13 feet is nailed to the top of these blocks, forming the compartment 1½x2x14 inches; and into each of these 10 a hive is slipt, making the hive-entrance on a direct line with the outside entrance, through the case.

Chaff or any suitable packing is used. The roof is hinged, and is raised up and held by two sticks. A lock is used on the opposite side of the case to lock the roof down, which does away with any one meddling with the honey or bees. The cost of this arrangement is about $3.50, and will give many bee-keepers an idea for a good home-made winter-case. The entrances to the hive are covered, and bee-tight. The floor to the portico has the same slant as the roof. Dead bees and water fall away from the entrance. Fulton Co., N. Y.

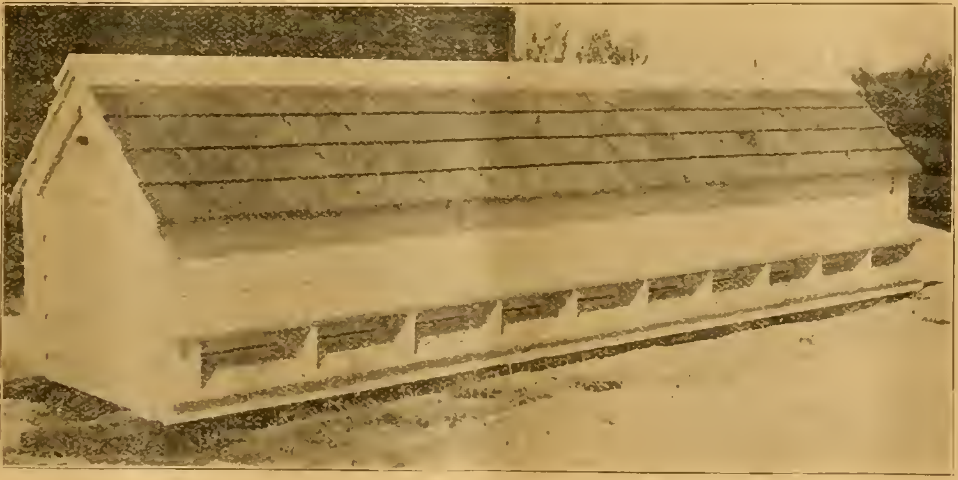

Fig. 1—Front View of the Orton Winter-Case Arrangement.

"Artificial" Increase, or Dividing Colonies.

BY G. M. DOOLITTLE.

A mania seems to have siezed many of those keeping bees, for increase of colonies otherwise than by natural swarming, if my correspondence is any criterion to go by, for, at no time in my bee-keeping life, have I had so many enquiries in this matter as during the past three months; therefore, to save so much private correspondence I will give some of the plans which I use successfully, in the American Bee Journal, even though it may be, to quite a large extent, matter which I have given before. But before doing so, I wish to say, that for this locality, I prefer natural swarming to any plan of artificial increase, where only one swarm is allowed from each old colony, and where said swarm will issue in time to prepare both old and new colonies in good condition for the honey harvest.

The first plan I will give for artificial increase is what is termed by some as the "nucleus plan." To be of the most value, the nucleus should be forced 18 or 20 days before the honey-harvest, by having enough bees in it to protect a frame two-thirds full of brood, the larger part of which should hatch during the first four or five days, while said comb should contain some eggs just laid, if possible. Besides this frame of brood and bees, the nucleus should contain a frame having a pound or two of honey in it, the whole being set in a hive and confined to one side of the same by means of a division-board.

The next day after making, a nearly-mature queen-cell should be given, or newly-hatcht queen introduced. In about 10 days, if all proves favorable, the young queen will be laying, when I go to the hive from which I formed the nucleus and select a frame of brood, nearly all of which are gnawing out of the cells, and add this to the nucleus, always putting a frame of comb or comb foundation into the old colony to take the place of the one taken out, otherwise too much drone-comb would be built; for colonies that are allowed to build comb under these conditions nearly always build drone-comb.

I now wait four or five days, when I go to the old colony and take out four frames of brood, from which all the bees were shaken, as they were from the last-mentioned frame, when I carry them to the nucleus. I now fill out each hive with empty comb or comb foundation, and put on the surplus arrangement.

By the above, each colony is made of about equal strength, and the brood is so taken out of the old hive that the colony does not have a desire to swarm. The old colony will have the most field bees for the first week or so, but the other will soon make the stronger colony of the two.

My second plan is to make one colony from each old one, on the principle of division of bees instead of division of brood, as in the above case. In using this plan we must have queen-cells nearly mature by the time our first colonies are preparing to swarm. Having such cells on hand, I go to a colony preparing to swarm, or one that has its hive full of bees and brood, and move it one side of the old location, so as to put a new hive in its place. If a hive is not full of brood and bees, do not touch it; for it is useless to try to increase bees till such is the case.

☞ I now look over the combs till I find the one having the queen on it, when I place that comb in the new hive. I next give them a frame having some honey in it, and then fill out the hive with empty comb or foundation, when about two-thirds of the bees in the old hive are shaken in front of the new hive and allowed to run in. After this I arrange the frames back in the old hive, putting a division-board in place of the frames taken out, when the old hive is carried to a new location where I wish it to remain. After the bees thus removed have become reconciled to their queenless condition, I give them one of the nearly-mature cells, or a virgin queen which will soon be laying. In this way I have secured my new swarm, controlled all after-swarming, and introduced my young queen, all to my liking, and with but little trouble.

My third plan is one which I use on the weaker colonies, or those which do not get ready to swarm up to 10 days or so before the honey harvest arrives, when I proceed to make colonies from them as follows:

A hive is filled with frames of empty comb, and placed upon the stand of one of these colonies which have not swarmed, and all the sections are taken off and placed thereon, then all the bees are shaken and brusht off their combs of brood and honey in front of the hive, into which they will run as fast as shaken off. Thus I have a colony that is ready for the honey harvest, as they have the queen, bees, and partly-filled sections all in readiness to work. Previous to this, nuclei have been started, so I have plenty of laying queens to use as I need them.

I next take all the combs of brood from which the bees were brusht except one, arranging them in the hive the bees were shaken out of, and carry them to the stand of another colony which has not swarmed. I next take the comb of brood which was left out, go to one of the nuclei, take out the frame having the laying queen on it, and put the frame of brood in its place. Take the frame—bees, queen and all—and set it in the place left vacant for it when arranging the combs of brood. I now put on the sections, and, having all complete, I move the colony to a new stand and set the prepared hive in its place. Thus I have a laying queen and enough of her own bees to protect her, together with a hive filled with combs of brood, and all the field-bees from the removed colony. The loss of bees to the removed colony stops the swarming impulse, and in about a week they have so regained their loss that they are ready for the sections again.

In this way I make one colony from two old ones, but have all in the best possible condition to take advantage of the honey harvest which is soon upon us.

These plans all look toward a host of bees in time for the harvest, with no desire to swarm; and thus having them gives an assurance of a large crop of honey.

Onondaga Co., N. Y.

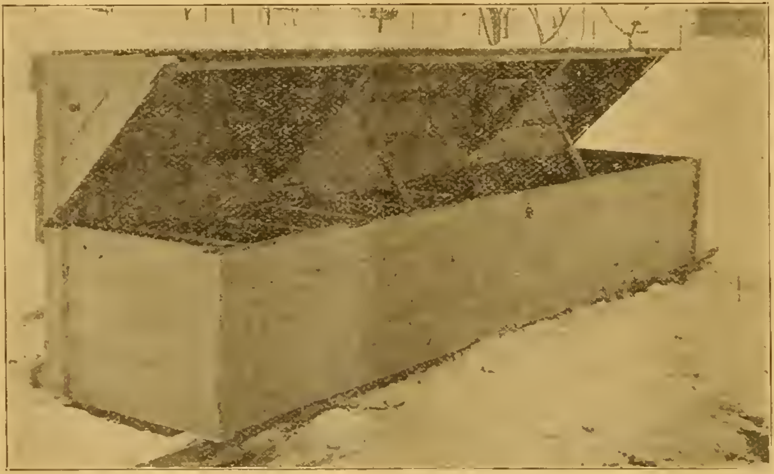

Fig. 2—Rear View of the Orton Winter-Case Arrangement.

"Digested" (?) Nectar and Glucose—A Protest.

BY EMERSON TAYLOR ABBOTT.

I desire to offer a mild protest as to some of the positions taken by Prof. Cook in his article on page 179. He says, in speaking of the glucose of digestion, that it is "transformed cane-sugar or starch, acted upon by the animal juices of the intestines" (note the language); and that "honey is probably the same, as the bees gather the cane-sugar from the flowers and transmute it by a digestive (?) process into the wholesome and delicious honey."

I want to say that honey is "probably" not "the same" as the glucose produced by the "juices of the intestines." At least there are a large number of us who think it is not, and up to the present time we have failed to find any convincing proof that our opinions are not correct. In the first place, we insist that honey as found in the combs has never come in contact with any "juices secreted by the intestines," as we commonly think of digestion. We are well aware that it passes through a transformation after it is gathered by the bees and before it is known as honey, but that is not necessarily a "digestive process," as plain, common people would define digestion. So far as I am concerned personally, I think the process of producing honey out of nectar bears more resemblance to that of producing commercial glucose out of corn than it does to the process of digestion as it takes place in the intestines. I especially protest against conveying the idea that honey has ever been in the "intestines" of a bee. One may just as well say that corn taken from a chicken's crop had been in its intestines—a statement which anyone would recognize as being far from scientifically correct.

Honey is transformed nectar, but I prefer to think of the process as being chemical, rather than the result of the vital energies of an animal organism.

Then the Professor would have us believe that commercial glucose is a very unwholesome food, if not really poisonous. He says bees seem to "know that it is an unwholesome food, and thus only take it as a matter of necessity." Do bees know anything about its "unwholesomeness," or do they refuse to take it because it is deficient in saccharine matter? If they know so much about glucose, why will they suck poisoned nectar from a fruit-tree?

"If glucose will kill bees, it stands to reason that it is very probably deleterious to all animals." I am not so sure that glucose will kill bees, but it does not follow that it is "deleterious to all animals," if it will. Too much salt will kill chickens, but it is beneficial, if not absolutely necessary, to some animals.

I, for one, do not think the honey industry will gain anything by beginning a fight against glucose as such. I do not think it is necessarily an unmitigated evil, and I am not alone in this opinion. One of the leading chemists of the United States uses the following language with regard to it:

"In regard to wholesomeness, also, it is not possible to condemn glucose. When properly made it is apparently as wholesome an article of diet as cane-sugar. In fact, the starches which are consumed in our foods are all converted into glucose during the process of digestion. A glucose food, therefore, is a starch food already partially digested......At the present time the use of glucose in the manufacture of molasses and syrups cannot be said to be a fraud, from a financial point of view, inasmuch as the glucose costs quite as much as the other materials of which the molasses and syrups are made"

Another chemist in the employ of the Government says:

"I consider that it is difficult to find in the market a sample of pure molasses such as could have been obtained some years since. If it is not adulterated with glucose syrup, it has been treated with chemicals in order to lighten its color. This latter method is quite as much an adulteration as the former, and it is, in my opinion, to be protested against much more than the use of glucose syrup. There is nothing deleterious in glucose, and its object is simply to make a syrup not only pleasing to the eye, but more pleasant, in the opinion of many, to the taste."

With such statements to contend with, I think that if we undertake to banish glucose from the land, we will find, to use a slang saying, that we have "bit off more than we can chew." As between the cane-sugar of the stores and a fine quality of commercial glucose, I should take the glucose, if I had nothing in mind but the wholesomeness of the two articles.

It does not follow, however, that any man has a right to mix glucose with cane syrup and sell the product for a fine quality of "Orleans molasses," or mix it with honey and call the entire mass "clover honey." This is a *fraud*, and should put every man behind the bars who does it. Let us insist that all food products be sold for *what they are*; and beyond this, it seems to me, we have no right to go. Buchanan Co., Mo.

Hive-Entrances in Winter—Sweet Clover, Etc.

BY E. B. TYRRELL.

Being a reader of the American Bee Journal, and believing it to reach the hands of many beginners who, like myself, are stumbling through the hardest and darkest part of bee-culture—the beginning—I desire to give them a few kinks which I have learned through five years of blunders and study.

In the copy of the American Bee Journal lying before me, I notice a question from N. English, Iowa, in which is askt if it would not be policy to shut bees in the hive in winter during sunshiny days, when it is too cool for bees to fly; to which Dr. Miller answers "No."

Now while it perhaps is not policy to close the hive-entrance with sticks or such like, yet I have found that it is certainly a benefit to shade the hive, entrance and all, by piling straw around it. To explain more fully, let me give my method of wintering:

In the fall I see that my bees are well supplied with honey, after which I place a super on the hive and fill it with chaff, placing a piece of cloth between the chaff and the brood-nest. Now they are left thus until snow flies and zero weather comes, after which I pile a little straw around the hives and cover them completely with snow. This is left until the cold snap passes—"it usually lasts about a week"—when the straw and snow is taken from the entrance *only*. Now after this straw is shaken out so as to clear it from snow, and the entrance is cleared, the straw is placed back, and left all the while until such time as I know it is warm enough for the bees to fly. By this method I lose no bees except from starvation, and they are in healthy condition in the spring.

A LITTLE SWEET CLOVER EXPERIENCE.

Ever since I can remember sweet clover has grown on the four corners of the road where I live. During this time I have had ample time to study it, but it has not been until the last two or three years that I have paid special attention to it. At the present writing there is quite a little of it around, as a result of some seed-sowing done by me last spring, one year ago. As yet the only fault I can find with it being on our roadsides is its rank growth; still I believe it is better than the ragweed which it crowds out.

In sowing it along the roads, I find that it grows best when sown very early in the spring, before it commences to freeze and thaw, and sowing it just where the grass leaves off and the ragweed commences to grow next to the tracks; then when it breaks up, the seed will be buried by the teams driving along on the side of the road.

Last year I commenced feeding some to my hogs as an experiment. At first they would hardly touch it, but I kept throwing it into the pen every day, and next I would find the stalks with the leaves stript off, and finally I could find nothing left in a short time after feeding it. They were well fed with other feed at the same time.

As to its spreading, I have only to say that a neighbor was working a farm joining us, and one little piece (a garden spot) got thickly seeded to sweet clover from the road. The first year the garden was not weeded very well, and the clover got a good start. The next spring it was on hand, bright and early, but the man plowed this piece for corn. At this time the clover was at least one foot high. He gave this corn ordinary cultivation, and every stalk of sweet clover was killed out.

SOME HINTS FOR BEGINNERS.

A few things I believe a beginner should remember—

1st. To handle frames and hives of bees as though they were eggs.

2nd. Not every bee that flies in your face will sting you.

3rd. Never think of *defeat*. When starting in bee-keeping, remember the most trying time is at first; and when handling frames of bees, never back out or flinch if they do act a little cross. Always accomplish what you commence.

4th. Never get mad when working with bees, even if they do sting you.

5th. Never bundle up your hands. I have received more stings by bundling up my hands so they were clumsy, than I ever could have received barehanded.

6th. When you are handling bees, never let a bee-sting unnerve you; but work just as carefully as though nothing had happened.

7th. Don't believe all you read or hear until first proving it.

8th. Do some reasoning of your own; and don't follow others simply because *they do it*. What suits some one else may not suit you. Ogemaw Co., Mich.

Adulteration of Honey in California, Etc.

BY PROF. A. J. COOK.

California bee-keepers are very pleased over their new anti-adulteration law. We owe this law—which perhaps is as excellent as such a law can be made—to the wisdom and energy of Mr. Clayton, who spent a good deal of time in perfecting this measure. He is an able man, and made it as good as he could himself. He then secured the services of a number of others to help him in perfecting the measure. Those who know Mr. Clayton, need not be told that he was in time, so that he had his Bill ready at the opening of the Legislature. Thus it was, that his Bill was one of the first—I think the very first measure—that past. Indeed it was so well managed and its passage so prompt that those who are interested in the nefarious work of adulterating honey, knew nothing about it, and thus could not bring any influence to bear to defeat it.

California is now in way of fighting adulteration successfully. We have a good law, and I see no reason why the old Union should not make use of this law, and make California the scene of the first big fight. I believe we can make no better use of the funds we have on hand. As a member of the Union, and also one of the Vice-Presidents, I stoutly urge that we at once proceed to fight adulteration under our State law right here in California. I shall at once write to the General Manager to this effect. I hope all the Vice-Presidents will do the same. I hope, too, that members of the Union, not on the Advisory Board, will write to the American Bee Journal to the same effect. A strong case made in such a city as San Francisco, and carried to successful completion, would have magnificent influence throughout the whole country. The Union has got to *do* this, or something akin to it, or else it will be dissolved and possibly merged into the other organization. I hope there will be free discussion of this matter.

The California Fruit Grower, in a recent number, makes a very curious assertion, as follows, in referring to adulteration:

"They cannot put up an extracted honey which in any way is a compound, *even though it be a fact that an absolutely pure honey is lacking in keeping qualities......*" (My italics.)

This is certainly news, even to the oldest bee-keepers. Possibly the writer meant that pure honey was so good that you couldn't keep it. I find that real good fruit, or good eatables of any kind, are quick to go at our house, and always were. I also know that many adulterated articles, and honey adulterated with glucose is certainly no exception, will keep a long time if I am to be the eater. But, if the writer meant that pure honey would not keep or maintain its excellence, for a very long period, then he simply does not know what he is talking about. I question if honey can be mixt in any way to improve its keeping qualities. It is true that if unripe honey is extracted—that is, if honey is extracted before it is ready to seal—it will sometimes ferment; but this is really not honey. I should say that honey was a perfected article, and if extracted before the bees are ready to seal it, it is thin and watery, and could no more be called genuine honey than could watered milk be called genuine. Such honey contains altogether too large a percentage of water, and like sweetened water, or the sap of maple trees, it is quick to ferment or sour, and of course will very soon lose its flavor and excellence.

It is whispered abroad, that the manufacturers of adulterated honey are not a little exercised over the new law regarding honey adulteration, past by the last California Legislature. If reports are true, they are preparing for a big fight. I say, let them commence—the sooner the better—and let the old Union, which has already done such valiant service, hasten to the combat. We surely have right on our side, and there is no reason in the world why we should not commence this prosecution at once. I do not believe there is the least doubt but what in such action we shall be triumphantly successful.

EARLY FLOWERS—BUSY BEES.

I have several times referred to the fact that California flowers were a long time in blossom. This year seems exceptionally peculiar in this respect, owing, I presume, to the mild, copious rains of the winter, the flowers started exceptionally early—I think two or three weeks earlier than usual. I rather sorrowed at this, for I feared my botany class, which commences the first of April, might lose many of the spring beauties. I find, however, that my regrets were vain, for we have been able to get all the flowers. I think I understand this peculiarity of long bloom, so pronounced in California. The climate is so arid here, that, in nature, the flowers, at best, have a hard time of it. Thus, through the law of "natural selection," they would acquire the habit of long bloom so that they might be able to take advantage of all possible seasonal peculiarities.

Just at the opening of the honey season this year we had a week or more of exceptionally warm, beautiful weather. It was just at the time of the orange bloom. The trees were such a wealth of bloom as to gladden the sight of every lover of the beautiful. They also sent forth such a fragrance that the whole country seemed one great region of perfume. The bees were in their glory. In walking along the streets it seemed almost as if there was a swarm of bees, so loud was the hum of these little insects as they were passing to and fro from the orange orchards. It is needless to say that the swarming commenced with a vengeance. Many a person was led to regret his neglect to secure hives, etc., and found himself wholly unprepared for this early swarming mania. Bee-keepers should always be ready to catch the harvest.

Los Angeles Co., Calif., April 29.

Salt Water Cure for Paralysis and Foul Brood.

BY J. A. GOLDEN.

I have received the following from the editor of the American Bee Journal, with the request that I reply to it:

EDITOR YORK:—On page 180, Mr. Golden speaks of the value of "electrolyzed chloride sodium water" as a cure for certain diseases of bees. I am not a chemist, and cannot find any mention of that particular form of sodium in any work I have, nor is it listed in a full catalog of drugs. Will Mr. Golden kindly give some information about the drug? How does it differ from common salt water? Where can it be obtained?

He speaks of giving his "method a practical test as described in the article mentioned," but there is no other mention of the article. Will he kindly refer me to the article?

I do no think there is a single case of bee-paralysis in my apiary at present, but I want to be prepared to experiment more with it when it does appear again, as it is almost certain to do in time. In my experiments, common salt water has had no effect on the disease. Will Mr. Golden kindly give me an idea of how many cases of bee-paralysis he has cured with this method?

O. O. POPPLETON.

I am glad to reply to your request through the American Bee Journal, thus answering a multiplicity of letters on the same subject, which have been received since requesting the electrolyzed sodium water to be tested on foul brood and bee-paralysis by those having bees affected with the maladies. It will be noticed, by reading my former article, that I have not had the opportunity to use the electrolyzed salt water, or hermitine, having no diseased bees in all this section of country, and if you will turn to page 888 of Gleanings for 1892, you will see, in reading my experience, that we had bee-paralysis pretty badly (a typographical error occurs at where it says, "And not a queen;" it should have read, "And not a queen missing"), and the salt water was applied, and no power of reasoning can convince me that salt water did not cure my bees of the malady. And, besides, all bees through this locality that had the disease were treated, and the disease has entirely disappeared. I could not give in numbers just how many cases had treatment, but in all between 30 and 40.

Having never failed in one instance to cure the disease called paralysis, with my mode of treatment with the salt water remedy, I obligated myself to accept for treatment one of the worst affected colonies of bees that T. S. Ford, of Mississippi, had in his apiary, upon the request of Ernest R. Root, of Gleanings, whom all will admit is wide awake to the interests and welfare of bee-keepers the world over. However, the colony never came to hand. After some time Mr. Ford wrote me that he would have to haul the bees some 30 miles to ship, and as I would have to haul them 9 miles after transportation by rail, at that time of the season it was running too much risk.

ELECTROLYZED SODIUM WATER.

Sometime ago, in reading a late work on photography, my attention was called to electrolyzed sodium water, from which I will copy the following extract:

"Extraordinary claims are being made for electrolyzed sodium water, or hermitine, which has not only proven a useful disinfectent for sewerage, but is said to have been adopted as an antiseptic in Paris hospitals. According to Dr. Proger, of Asniers, it is neither caustic nor irritating; it may be applied to the mucous membrane as to the skin; it instantly removes all bad odors, stops all putrescent fermentation, kills microbes more effectually and rapidly than any other antiseptic, cleanses and heals fetid wounds and sores, and is, in fact, an ideal antiseptic."

He also urges its advantages from a domestic point of view, for deodorizing and cleaning, and from a medical point of view as an antiseptic and healer. Dr. Proger reports successful use of it in cases of angina, coryza, and incipient diphtheria.

To produce electrolyzed sodium water, take a jar—glass or earthen ware—fill it with salt water any strength you desire; then take two copper wires, attach one to the negative and one to the positive wires of a battery, and insert the copper wires into the jar of salt water, and turn on the electricity. The stronger the battery the quicker the water becomes electrofied, thus dissolving certain salts contained in the mixture, as I am informed, and removing the electric current from the water leaves the water in an electrolyzed state, and if strongly charged a taste will give you some idea of the difference between electrolyzed and the plain salt water.

APPLICATION.—There are so many people that do not pursue a proper course in testing many of the methods given in bee-culture, consequently disappointments ("Didn't I tell you so?") are the result all along the line. To properly treat a colony of bees affected with paralysis, one must have a Lenox atomizer (which can be had for about 35 cents by mail, and no bee-keeper should be without one); a good, stiff scrub-brush, and two solutions of salt water—No. 1 and No. 2—No. 1 being a strong brine, and No. 2 sufficiently salt to taste quite a little salty.

Remove the frames and bees from the hive to be treated, to another hive or box, then give the hive a thorough scrubbing with solution No. 1—bottom-board and all; then lay a thin or light cover over the hive, having placed the hive on its stand; then shake every bee from a frame, and with the sprayer thoroughly spray the frame, comb, brood, and eggs, and set it in the hive, and so on till all have been thus treated. Then shake the bees at the entrance and cover the hive with the hive-cover. In five days take off the cover and thoroughly spray the combs, brood and *bees*. This time you need not move the frames, but send a spray down between the frames pretty thoroughly with solution No. 2, and continue every five days as long as you see the bees showing symptoms of infection.

I am very anxious that some one should treat a case of foul brood in like manner with the electrolyzed salt water as well, and report the facts as they occur under the treatment.

I hope the foregoing will be satisfactory to the many questioners on this subject. Morgan Co., Ohio.

CONVENTION PROCEEDINGS

Report of the North American Convention Held at St. Joseph, Mo., Oct. 10-12, 1894.

REPORTED BY LOUIS R. LIGHTON.

[Continued from page 792 of the Bee Journal for 1894.]

THIRD DAY—Morning Session.

The convention was called to order at 9 o'clock, and proceeded to the work as indicated by the program.

Secretary Frank Benton read the paper written by Mr. W. S. Pender, of Hunter River, N. S. W., Australia, entitled,

BEE-KEEPING IN AUSTRALIA.

The late Dr. Wilson, according to the Australian Bee-Bulletin, is credited with being the first person to successfully import a colony of black bees into the Colony of Tasmania, and have them fully establisht. Swarms from these bees were sold at £5 ($24) each, a number finding their way to various parts of the Australian continent. Some further importations were made, of which we have no definite record. The black bee is now to be found wild all over Australia. During seasons of plenty, swarms are very numerous, and if an excursion be made through the bush (forests), several may be often seen hanging on the limbs of trees, a fence, or other conspicuous place. Swarms often fly across towns, and it is not an unusual occurrence for them to settle somewhere in a public thoroughfare; the most noteworthy instance that I have seen was last season when a passing swarm decided that the back seat of a buggy, standing in the principal street of West Maitland, N. S. W., was the most suitable place to settle on, from which place they were successfully hived in a box by a passer-by without removing the horse from the vehicle. Now and then a swarm will build comb and commence brood-rearing on the place where it settles, as the branch of a tree, and there thrive for awhile.

In some seasons large quantities of honey are secured by felling trees containing a nest, the hollow part being from 6 to 15 inches in diameter, the combs often extending a distance of 6 feet along the hollow. It is not unusual for 100 pounds or more of extracted honey to be obtained from these nests.

The black bees in this country have proved to be excessive swarmers during seasons when they could get just sufficient nectar to keep up rapid brood-rearing, but when honey was being rapidly stored they seemed to forget about increase, and set to work to store. Swarming may commence in August and continue to early in the following March. Swarms can be purchast for from 60 cents each upward.

Bees are mostly kept in any convenient box that can be found. In some places the joints are so open, through warping and splitting of the timber, that the bees and combs can be seen from quite a distance; sometimes the hives are sheltered with sheets of bark, rough boards, etc.; at other times under a shed. After the swarm is placed in a hive no further care is taken of it until the autumn—generally the end of February—when they are driven to another box and allowed to do the best they can for winter. In many localities in a favorable season these driven bees will build complete combs, rear brood and store sufficient honey before winter, which they will come through in very strong condition.

Since the introduction of the frame hive and Italian bee, many have adopted the more modern methods of bee-keeping, which is carried on similarly to American bee-keepers. In fact, American bee-literature is what is mostly in circulation, and the methods there described seem to suit this country very well when modified to suit our honey-flows.

Our climate is such that very little attention is given to wintering bees, beyond seeing that they have about 10 pounds of stores, a good queen, and a watertight cover. In the warmer parts the amount of stores for winter gives no concern, as there is generally sufficient food to be obtained from something, as grasses, weeds, underscrub, etc.; if there should not be a winter honey-flow. To give an idea of what a winter flow is sometimes like, I will cite the following:

During the season of 1892, Mr. M. Scobie, of West Maitland, N. S. W., started the spring with 17 colonies of black and hybrid bees. Anticipating favorable weather for the following winter, and noticing the spotted gum trees were heavy in bud (the buds of this tree are from 15 to 18 months from the time of forming to bursting), be allowed, or rather encouraged, his bees to swarm, hived all first and after-swarms on comb foundation, and by April had 90 colonies when the trees burst into bloom, and before the end of June 7,000 pounds of honey were extracted. This is very encouraging, is it not?

Now for reverses: The past season has been very wet, and that same bee-keeper started with 172 colonies, from which he did not get one pound of honey, and then had to feed some of his colonies for winter.

In some seasons the trees seem to arrange their time of blooming to make one continuous flow from August to the following June, with very little break between, and during such a season, with proper management, I believe it is quite possible to average 500 pounds of extracted honey per colony. These seasons are scarce, but taking one season with another an average of 150 pounds per colony in bushy (forest) country, and 40 pounds when bees have to depend entirely on cultivation, is obtained. The statistics at the end of this paper do not paint things so brightly, but it must be remembered that at least 80 per cent. of the hives are boxes in which a swarm is placed to take its chance.

The hive most generally in use is the Langstroth, with Simplicity size of frame, with all its modifications. A large number consider this size of frame too large, and have adopted the ¾ size, to take 6 instead of 8. The 8-frame hive with Root-Hoffman frames is now being very much used. A small number of bee-keepers use the Berlepsch hive.

The honey produced is mostly extracted, comb honey having very little sale. It is very varied in quality, the color varying from water-white to the dark color of golden syrup. The flavor may be very mild or very strong. Some of the finest looking honey is so rank in flavor when first extracted as to be almost unpalatable, but this rankness disappears after a time. The quantity of this rank honey produced is small. Most of the honey produced is of excellent quality. The largest quantity and the best qualities are produced during fairly dry seasons. Very little regard is paid by consumers to the color of honey, and when it is put on an open market a dark kind of honey will generally realize as much as a lighter colored kind. The price varies with the locality and the state of the market, varying from 2½*d* to 4*d* per pound (*i. e.*, 5 to 8 cents). It is mostly sold in 60 pound tins.

At present fully as much honey is produced as a market can be found for, but as foreign markets are being opened up our home markets will be much relieved.

The wax produced is of the very finest quality, and is very varied in color, from a pure white to every shade of dark and canary yellow, and some even has a pinkish color. The white wax direct from the combs is very tough and quite different from that made white by bleaching. What is it that gives wax its color? I frequently find my bees build and seal their stores with wax quite a canary yellow in color. Now seeing that our honey is so varied in color, and that wax is a secretionary production, is it not most reasonable to expect that the difference in color is due to the difference in food rather than impurities?

Propolis the bees must have more or less of, and varies in color and appearance from a dark red to a dirty brown, sometimes granular, hard and brittle, other times soft and sticky, and will draw out in threads several inches long before breaking. I find that only certain colonies do much propolizing, and these will gather more propolis than all the rest in the apiary, bridging over all spaces between frames, etc. Where mats are not used I find propolis reduced to a minimum.

Bee-keeping as an occupation is quite practicable here. There are a number who follow the pursuit wholly as a business, and others are going into it.

The diseases of bees, viz., foul brood and paralysis, are well represented, the former confined mostly to a few localities and the latter pretty general all over Australia. Foul brood is easily cured by simply hiving the bees on new frames having comb foundation starters or full sheets in a clean hive, the old hive scraped and painted inside and out.

Almost the whole of the native timbers yield large quantities of nectar, of which the eucalypti form the largest family. These are all hardwoods, and grow to a height of 150 and 200 feet. Some kinds will not throw out a branch until about 60 feet high, with a straight, slightly-tapering trunk to the top. These trees grow into a very dense forest (called here "the bush"). The nectar in some of the blossoms is so great as to be easily thrown on the hand if it is struck with a bunch of blossoms. The blossom is very weighty, causing the branches to bend very much.

There is really no systematic nomenclature of our timbers, each district calling trees by different names. Some of the trees in different districts seem to vary a little in appearance according to the kind of soil. There is also a great difference in the qualities of the timbers in different districts. Among the best honey-producing timbers may be mentioned spotted gum, ironbark (three kinds), stringbark, mahogany (three kinds), blue gum, red gum, grey gum, bloodwood, apple, water gum, etc. There is a very large variety of scrub plants producing excellent honey; grasses add a little. The gigantic lily has about a teaspoonful of nectar in each flowerlet, about 8 or 9 being open at one time, forming a head not unlike a clover flower, but about 12 inches in diameter, and red in color. Besides indigenous plants there are clovers, lucern, buckwheat, etc., which yield large quantities in some seasons.

In associations there are a number, the representative body being the National Bee-Keepers' Association, which is yet in an experimental stage in New South Wales, but holds an annual convention with an attendance of from 75 to 100 bee-keepers. The Victorian Bee-Keepers' Association and the South Australian Bee-Keepers' Association are doing good work. There are many district associations, viz.: Hunter River, New South Wales, Muswellbrook, Wellington Valley, Murrurundi, Hawesbury, and there may be others which have not come to my knowledge. There is one paper publisht, the Australian Bee-Bulletin, that is entirely devoted to bee-keeping, issued monthly, in West Maitland, N. S. W. Many of the agricultural papers devote a space to bee-keeping, all helping the industry more or less.

There are several firms manufacturing appliances, some few having quite an extensive business, using steam power, and some of the most modern all-iron machinery.

The business of queen-rearing is not neglected, and through the energy of breeders a strain of leather-colored Italian bees has been produced that are excellent honey-gatherers, prolific and hardy. A large number of yellow queens have been imported from America, but those who have bred them largely are mostly inclined to go back to the leather-colored bee. The yellow bees lack in hardiness and as winter honey-gatherers. The methods mostly adopted for queen-rearing is the Alley plan, or some modification of it. In some few cases Doolittle wax-cups are used.

Of bees that are native very little may be said, as all except one kind are solitary bees, of which there are very many varieties. The only bee that stores any honey is the "native bee"—Apis trigona. It is smaller than an ordinary fly, and stingless. It is numerous in certain districts all along the eastern part of Australia. It may live in other parts, but I have not heard any reports about them. As they are of no value for commercial purposes, very little attention has been paid to them, the quantity of honey stored by them being but small—a gallon would be an extra large yield. They are kept by several bee-keepers, more out of curiosity than for any advantage to be gained from them. Their honey-cells are an irregular mass of cups built about without any regularity, in size about 3/16 inch in diameter, and shaped like an inverted queen-cell stub, which is sealed over when filled and another built on top or to one side of it. The honey is thin, of a peculiar acid taste, very like ordinary honey mixt with vinegar. Their "wax," if I may call it by that name, does not seem to be wax at all, being in color brown or nearly black, and, when melted, just like sticky propolis. I cannot describe the brood, not having had a chance to examine their brood-nest, which is said to be under the shapeless mass of honey-cells. I extract the following from the Australian Bee-Bulletin, page 117, Sept. 25, 1893:

"They do not build comb in the usual sense of the word; secondly, the shapeless mass of tiny cup-shaped cells which constitutes their brood is not divided into layers in any way, but simply tunnelled with passages in all directions. When they wish to enlarge their brood-chamber they simply build a bunch of cells anywhere against the mass already built; in them the queen lays, and when the young brood is a certain age they seal, not each individual cell, but the whole bunch by covering it over with papery material, very similar to the brood-capping of the ordinary bee. The young bee hatches under this covering, but it is easily recognized as it is quite white, and remains so for some days, gradually growing darker till it reaches the bronzed green shade of the matured insect. The brood-cells would just hold one grain of No. 1 shot."

I am sending a sample of the bees in a small bottle of their honey, and a small piece of their wax. The queen is very long, about 5/8 inch, the head and thorax being similar to the bees, but the body very long, of a light brown color. I could not see any signs of drones in the nest, tho they may not be any different from the ordinary bee. I have now two nests working in observatory hives; when I wish to see the queen I draw the wooden slide and allow the sun to shine through the glass on their nest. In about two minutes the queen will make her appearance, quietly crawling over the cells. W. S. PENDER.

Drumfin Apiary, W. Maitland, N. S. W., Sept. 1, 1894.

N. B.—The statistical register for New South Wales, 1893, states that there are 44,693 productive colonies, 8,790 unproductive ones, yielding 1,139,557 pounds of honey (being an average of 255 pounds per colony), and 39,242 pounds of beeswax.

From the Registrar General's Report, Queensland, 773 bee-keepers reported 11,997 colonies producing 628,051 pounds of honey. The Government Statist, Victoria, reports 3,356 bee-keepers, 27,483 colonies yielding 725,233 pounds of honey, and 24,214 pounds of beeswax.

Statistics from other colonies have not come to hand.

It should be remembered that the above reports include all sorts and conditions of hives. W. S. P.

Mr. Benton—I should hate to have it get out that I was present and permitted some of the statements in this paper to go by without criticism. First and foremost, the bee is not "Apis trigona" at all. It is not an Apis. Our hive-bees belong to the Apis, which is a Latin word meaning "bee." This bee comes under the Trigona, but is not an Apis. There are 40 or 50 species of the Trigona. I have had some of these bees under my care at one time, and took one little colony with me to Java from the forests of Ceylon, and carried them back into the interior of the Island of Java, and they workt as tho they were giants. They carried in loads of pollen that were very large indeed. I was able to observe their brood-nests very carefully, and Mr. Pender is positively in error in stating that they don't keep individual cells. They are groupt together as grains of wheat stood on end. You have all dug out Bombus, and they are about the same. The individual cells are sealed—that might be called an envelope of wax enclosing the brood-cells. Those overlap, and there are passages for the bees to pass beneath. When they wish to enlarge the brood-nest, they tear down the covering and add other cells. Outside of this are the honey-cells or honey-cups, like an inverted queen-cup on the edges of the comb. The feed is placed in first, and the queen lays the eggs on the feed. They lay the egg on a mass of pollen and honey mixt. It is not quite as dense as pure pollen would be. The egg is laid in this, and before it hatches it is sealed into the cells. The pupa or imago state is short. I have noticed that the Melipona of Brazil do the same thing. One thing of interest, which Mr. Pender has not mentioned is this, that for their protection, as they are stingless, they build from the center of the brood-nest a tubular passage that will lead up the inside of the hive, which seems to be composed of propolis, a resinous gum. This is built so that it usually hangs down, altho sometimes they omit it altogether. I once observed a nest in an iron pillar, and the opening only admitted one bee at a time, and they built no tube for they seemed to understand that it was not necessary to defend themselves. I have never seen a swarm of them.

Pres. Abbott—They could be clast Apis if they do swarm in a body, for the word Apis comes from a Greek word meaning "cling"—"hapto."

Mr. Benton—I beg leave to differ from you. These names have been given to identify a certain insect, Apis having been applied to a certain genus. These names have been given by men who have studied the subject, not myself, and have establisht them, and we cannot take this bee out and call it by another name.

(Continued next week.)

Back Numbers Since Jan. 1.—We are able to supply complete sets of the Bee Journal since Jan. 1, 1897, to any who may desire, at two cents per copy. There are a number of new readers who perhaps would like to get some of the first numbers of this year, to complete their volume for 1897. We shall be glad to furnish them as long as they last, at two cents each.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Rape as a Honey-Plant.

Is rape a good plant for bees? Peris, Oreg.

ANSWER.—Rape is counted one of the best honey-plants. In this country little is said about it, perhaps because there are seldom large fields of it, and a few scattered plants amount to little, no matter how good a yielder a plant may be. But in Germany bee-keepers count much on it, sometimes hauling their bees to the rape-fields during the period of bloom.

Keeping Ants Out of Hives.

How can I prevent ants from getting into the bee-hives? MISSOURI.

ANSWER.—In the North it's about as well to let them alone. They don't seem to do much harm, seeming to care mainly for the heat of the hive. If they are in a hive that has quilts or sheets over the brood-frames, they make nests on top of these latter, and annoy the operator by running over his hands and biting them every time the hive is opened, but if a hive is used with a board cover and no quilts to afford lurking places, the bees will keep them out without any trouble. But in the South they are reported as sometimes being mischievous to a serious degree. Possibly the kind is different. Some succeed in driving them away by sprinkling pulverized borax. A sure plan is to have the hive on a stand with four legs, the foot of each set in a sardine box or something of the kind filled with water or kerosene oil. If water is used, it must be filled up as fast as it evaporates.

Putting on Supers, Etc.

The weather is fine, and I have my one colony of bees on the summer stand, apparently doing well. H. J. W. wants to prevent swarming. Now I would like my one colony to swarm say five times, then next winter I would try wintering some on the summer stands and some in the cellar. Small grain is all in, and wheat is up. Imagine me sitting on the grass these warm days watching the bees. I would give a cooky if I could see inside of the hive, and what they were doing. I feel sorry for Mr. Boomer. I rather think if he drops the Bee Journal he will feel lonelier still.

I see something about putting on two supers, but I don't know when to put on the first. S. D.

ANSWER.—If you want to know what's going on inside the hive, why don't you lift out the frames and see? But it may be better for the bees not to be disturbed, for when they are getting along all right, the less they are meddled with the better.

The general rule is to put on the first super when you find the bees putting bits of white wax along the upper parts of the comb or along the top-bars. If white clover is your chief yielder, there will probably be no need to put on a super till you find white clover in bloom quite plenty.

Starting with Bees from Trees.

I have a piece of land in the foothills of the coast range mountains, and while there last summer, in June, I noticed many bees working on the clover and creeping blackberries, and being an old bee-hunter I had no difficulty in locating two trees in a very short time. I cut the trees, and from one of the colonies I secured 100 pounds of nice, clear honey, and from the other 300 pounds. All people that tasted it pronounced it of the finest quality. I saved the bees, as it is no trouble to do so. I would not break up their home if I could.

Now I do not suppose it would pay any man to hunt bees to start an apiary with, that was not an expert in hunting them, but I can find them as sure as one bee comes to my bait; and what I wish to know is, must I save the brood, fasten it into frames, and give them new queens?

I find that there is a big difference in the bees I find on the flowers, and half, or nearly so, have more or less Italian blood, but as I am not an expert I cannot tell how much Italian blood. But the woods are full of bees, and I am quite sure this is one of the best locations for bees in the State, as the honey-flow is continuous. First come the blackberries and huckleberries (red variety); then the white clover and mountain pea-vine, which blooms for two months, and its bloom is always covered with bees; and long before that is out of bloom comes the elkweed (or fireweed), which blooms till frost comes the last of October. I am sure it's a good location, and I would like to try my hand in the bee-business. I can get the bees, and get them into the hives, but the question is to make them store the honey in the hive as well as they do in the trees. I am anxious to learn.

I enjoy the Bee Journal very much. Success to its editor and the paper. I am glad of the vigorous stand it takes against all frauds. Count me in to lend a hand, if needed at any time. I had the pleasure of being present at the California State Bee-Keepers' Association at Los Angeles the past winter, and enjoyed it very much. Montaville, Oreg.

ANSWERS.—When saving the bees, it is well to put in frames all the worker-brood, but it isn't necessary to give them a queen, for their own queen will do just as well in a hive as in a tree.

If the workers of a colony all have three yellow bands they are considered pure Italians.

There is no reason why they should not store as much honey in a hive as in a hollow tree. One as successful as you in getting wild bees, especially with such yields of honey, ought to be able to build up an apiary in that way very profitably.

Fastening Foundation in Sections.

Do you think the plan for fastening foundation in sections, given on page 241, is any better than the Daisy fastener? IRENE.

ANSWER.—I don't know of any respect in which it is any better, and can hardly see how any one who has given the Daisy a fair trial could possibly prefer the plan of cementing with melted wax. In the latter case the starters must be carefully laid in place and time taken to pour on the melted wax, whereas with the Daisy the foundation comes immediately in contact with a plate kept so hot that the edge of the foundation is at once melted, then a quick motion slides it at once against the wood, resulting in such rapid work that the other is not to be compared with it. When it comes to cutting the comb of honey out of the section, that on which the Daisy fastener has been used is as easily cut through as the natural comb.

Killing Drones and Deserting.

I transferred a colony of hybrids from a box-hive to a movable-frame hive. I cut out the combs and tied them in the frames, leaving out the drone-comb. They seemed very well satisfied, but in a few days they commenced killing the drones, and in about a week after transferring them they swarmed out. I hived them in another gum, and they are working nicely. I have a colony of blacks transferred, and they are staying in all right. Why did they kill the drones and swarm out? I examined the hive they were in—they had gnawed the caps off the brood.

Since the last day or two all my colonies are fighting drones. Bees have not swarmed yet, either, nor gathered any surplus, but have built up well.

Denny, S. C., April 15.

ANSWER.—The killing of drones probably had nothing to do with the swarming out. The drones were probably killed because the bees failed to find pasturage. It isn't easy to say why they left the hive. As it occurred during or just after their killing drones, it could not be a case of natural swarming, but was a case of desertion, and was caused by some unsatisfactory conditions, possibly because too hot. But something entirely different may have been at the bottom of the trouble.

☞ This is a good time to work for new subscribers.

The American Bee Journal
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Editorial Comments.

What Shall the Harvest Be?—If we may judge from the reports we have received from almost every nook and corner of the continent this spring, a good honey harvest may be expected this year. In many localities the white clover has once more made its appearance as of old, which many take as a prophecy that better honey years are about to re-appear. But whatever comes, let all be prepared. If that "whatever" should prove to be a rich harvest of sweetness, then don't run the risk of missing it by being unprepared to take advantage of it.

In a few short weeks now, many will be able to answer definitely the interesting question—"What shall the [honey] harvest be?"

◆

The St. Joseph Convention Report, which should have been completed in December, 1894 (and would have been had the Secretary done his duty), is taken up again on page 309 of this number. We will publish the balance as taken by the stenographic reporter, Mr. Louis R. Lighton.

We thought best to delay giving the remainder of the report until all others were done with, this spring, so now we can go right through with what is left without any break. We supposed there was quite a good deal left, but three or four numbers will probably end it. What a pity it is that we couldn't have had it all when it should have been here, in November, 1894, for then we could have completed it that year. But history is quite interesting reading to many, and so this closing part of the St. Joseph convention report may prove to be. We hope it will be so.

◆

Keeping Qualities of Extracted Honey.—Mr. C. H. Clayton, of Los Angeles Co., Cal., the framer of the excellent anti-adulteration of honey law in that State, wrote us as follows, May 1:

> Editor York:—A recent issue of the California Fruit-Grower calls the attention of dealers, grocers and shippers of honey to the new law affecting their interests (the anti-adulteration law which it publishes), and among other things has the following choice gem:
>
> "They cannot put up an extracted honey which in any way is a compound, *even though it be a fact that an absolutely pure honey is lacking in keeping qualities.* They cannot manufacture or sell a honey which is an admixture, no matter how innocent or desirable that admixture may be."
>
> I italicise the part of the foregoing that deserves our attention, as it foreshadows the defense, or justification, which will be set up by the adulterators. What have you to say as to the keeping qualities of pure extracted honey?
>
> As to the desirability of manufacturing an "admixture"—frankly I don't believe either the producer or the consumer desires it, so it remains only "desirable" to dealers, grocers, and shippers. I wish you would take up this subject of keeping qualities, and bring out all the real information obtainable. It's going to be *the* fight. Yours truly,
>
> C. H. Clayton.

It will be noticed that Prof. Cook, in his article on page 307, also refers to this same subject.

We think Mr. Clayton has it exactly right, when he suggests that the "admixture" is desired only by dealers, grocers and shippers, and for the simple reason that they have been getting a bigger profit out of handling the fraudulent article than out of the pure honey.

The idea that a properly ripened article of "absolutely pure honey is lacking in keeping qualities!" That will be news to bee-keepers. What excuses won't the dishonestly inclined hatch up in order to create prejudice and to uphold their miserable cause?

But suppose we help out our California friends—the bee-keepers—with a little testimony along the line of the keeping qualities of extracted honey. How long has it been kept in perfect condition by the older readers of the Bee Journal? Let's hear from a few, just on a postal card.

Our opinion is that first-class extracted honey will keep indefinitely.

◆

New Union and the Bee Journal.—In order to help our subscribers, and also the United States Bee-Keepers' Union at the same time, we have decided to offer a year's subscription to the American Bee Journal and a year's membership dues in the New Union, both together, for $1.75. But it must be understood that in order to get this rate, all arrearages of subscriptions must be paid, and the $1.75 rate to apply on advance subscription.

Now send us your orders, and we will attend to turning over the $1.00 membership fee to the New Union, on each subscription to the Bee Journal as per the above offer. This ought to add 500 members to the New Union by June 1. If it does, our contribution will be just $125.

Now, if you want to see the New Union succeed in its grand work, in the interest of *all* the bee-keepers, come on with your cash. General Manager Secor is just aching to do his part whenever he sees sufficient funds in the treasury to pay the bills.

◆

Noticing New Bee-Papers is thus very aptly referred to by Editor Holtermann, of the Canadian Bee Journal:

> "It is no kindness to draw attention to a paper which in nine cases out of ten is trying to occupy a field already well covered, which will give inferior service, and when, often, the unlucky subscriber gets after a few months nothing for his money."

That's it, exactly. Why in the name of creation should any new papers in any line be encouraged by those already fully occupying that line? We could mention several outside of bee-keeping that would better never have been started at all, for they proved only a source of loss to their publishers.

But it seems some people have a sort of itching to get into the publishing business, and that often without the slightest adaptation to that very risky field. What, then, can be kinder on the part of every one, than to discourage all such ventures when it is known that only loss and disappointment can be the legitimate and final result?

New papers in any field already fully occupied must expect to have a hard road to travel, and then feel pretty well assured that success is well nigh unattainable.

In view of the wreck-strewn shore of the tempestuous sea of bee-journalism, it would seem that no sane person would for an instant entertain the idea of starting a bee-paper these days. But, then, 'tis said that the fools are never all dead.

Keeping Insects Out of Honey.—Prof. Cook tells in Gleanings how those troubled with insects getting into comb honey might prevent it. He says:

> "I think that, in most cases, simply wrapping such packages in paper will prevent insect attack. The thing to be sought is to keep the odor of the honey from passing through the paper so as to attract the insects. This might make it necessary to seal the package hermetically. To do this the bee-keeper has an easy method right at his hand. He has only to dip the paper in hot melted wax, getting just as little wax as possible on it. Then if he wraps the section while the wax is a little warm, he will so seal the package that no odor of honey can escape, and so the insects will not be attracted. I should have great confidence that this would work, but of course it would have to be tried before we would warrant it. I should also have great faith if we used paraffine instead of the beeswax."

Prof. Cook says further that as California is such "a perfect paradise for insect life," the production of extracted honey is more suitable there than comb honey. You see, when extracted honey is once in screw-cap cans, there isn't very much danger of insects getting into it.

Foundation-Mills and Exractors.—Editor Root, in speaking of patents on comb foundation-mills and honey-extractors, said this in a recent issue of Gleanings:

> A short time ago Mr. Bingham express himself as believing there were no patents on foundation-mills. Something like a dozen, I believe, have been issued. The most important were from the following named parties: W. C. Pelham, Mrs. Frances Dunham, E. B. Weed, and last, but not least, the lamented Samuel Wagner. The latter obtained the first patent. For two years his assignee, Mr. Perrine, prevented us from making foundation-mills and foundation, there being two years more life to the patent.
>
> Something like 100 patents have been taken out on honey extractors, in the United States—at least, we have on file in our office that number. It seems now as if no patent that might be issued would be worth anything to the inventor.

Encyclopedia for Beeswax.—Some time ago we offered a splendid work of eight large volumes, called "The New Standard American Encyclopedia," having nearly 4,000 pages, and over 300 colored maps, charts, and diagrams. Size of volume, 2 inches thick, 8½ wide, and 11½ long. As per that offer, last publisht on page 186, the eight volumes were offered by freight for only $19 cash. We can furnish a set or two at that price, bound in half morroco; or will exchange a set for 75 pounds of yellow beeswax, delivered at our office. You would be more than satisfied with the Encyclopedia, and a set of such books ought to be in every family for reference.

The Horse—How to Break and Handle.—This is a pamphlet of 32 pages, giving complete instructions for breaking and educating colts, teaching horses to drive, and for use under the saddle, together with many instructions which have never before been publisht, and which are the result of the author's experience covering a period of 20 years. By Prof. Wm. Mullen, with whom the editor of the Bee Journal is personally acquainted. Price, postpaid, 20 cents; or given as a premium for sending us one new subscriber to the Bee Journal for the rest of the year at 60 cents.

The Combination Offer, on page 314, is exceptionally desirable. Why not get that bee-keeping neighbor or friend of yours to let you send in his dollar for a year's subscription to the Bee Journal, and then you add 25 cents to it and secure for yourself the Ladies Home Companion and the book, "Samantha at Saratoga?" Or, pay your own subscription for a year in advance and for the extra 25 cents get the Home Companion and the book. We do not expect to be able to continue this liberal offer much longer, so if you want to take advantage of it, it will be well to do so now.

Beeswax Wanted.—If you want to get *cash* for your beeswax *promptly*, ship it to the publishers of the Bee Journal. We are now paying 25 cents per pound for good yellow beeswax delivered at our office. Address, George W. York & Co., 118 Michigan St., Chicago, Ill.

The Weekly Budget.

Messrs. Leininger Bros., of Putnam Co., Ohio, writing May 12, said: "The season here is opening very encouragingly. We expect a large crop of honey."

Mr. A. A. Anderson, of Ontario, Canada, says: "I am very much pleased with the Bee Journal. I have kept bees on a small scale for over 20 years (since I was 15 years old), and have made them quite a study."

Dr. Miller says in Gleanings that it is just as much fun for him to watch the bees get to work this spring as it was 35 years ago. Strange what a lasting fascination there is about bee-keeping. It also seems to keep its devotees young in both heart and body. Hurrah for the blessed bees!

Mr. J. W. Van Allen, of the firm of Van Allen & Williams, in Crawford Co., Wis., reported, May 7, that Mr. Williams was very sick with lung fever; also, that Mr. Van Allen's 12-year-old son was just recovering from a similar attack. We hope both afflicted ones may soon be fully restored to health again.

Mr. Frank McNay, of Wisconsin, when sending his dollar for another year, said: "You should raise the price of the American Bee Journal soon, if you keep on improving it." Yes, you are quite right, Mr. McNay, but at present we shall try to continue to give the best we can get up for only $1.00 a year. Two cents is surely a low price for one number of the Bee Journal.

Mr. Wm. S. Barclay, of Beaver Co., Pa., wrote us May 12 that on Nov. 1, 1896, he suffered from a stroke of paralysis which affected his right side and particularly the right arm. We are very sorry to learn this, as Mr. Barclay is one of our oldest subscribers. We trust he may continue to recover from the effects of that stroke. He wisht us to make this announcement so that those whom he owes letters may know why he has failed to reply.

Now for New Subscribers for the rest of 1897: We would like to have each of our present readers send us at least *one new subscriber* for the Bee Journal before June 1, 1897. That surely will not be hard to do, when they will need to pay *only 60 cents* for the rest of this year. That is about 8 months, or only 7½ cents a month for the weekly American Bee Journal. Any one with only a colony or two of bees should jump at such an offer as that.

Now, we don't ask you to work for us for nothing, but will say that for each new 60-cent subscriber you send us, we will mail you your choice of *one* of the following list:

Wood Binder for the Bee Journal	20c.
50 copies of leaflet on "Why Eat Honey?"	20c.
50 " " on "How to Keep Honey"	20c.
50 " " on "Alsike Clover"	20c.
6 copies "Honey as Food and Medicine"	20c.
1 copy each "Preparation of Honey for the Market" (10c.) and Doolittle's "Hive I Use" (5c.)	15c.
1 copy each Dadants' "Handling Bees" (8c.) and "Bee-Pasturage a Necessity" (10c.)	18c.
Dr. Howard's book on "Foul Brood"	25c.
Kohnke's "Foul Brood" book	25c.
Cheshire's "Foul Brood" book (10c.) and Dadants' "Handling Bees" [8c.]	18c.
Dr. Foote's Hand-Book of Health	25c.
Rural Life Book	25c.
Our Poultry Doctor, by Fanny Feild	25c.
Poultry for Market and Profit, by Fanny Field	25c.
Capons and Caponizing	25c.
Turkeys for Market and Profit	25c.
Green's Four Books on Fruit-Growing	25c.
Ropp Commercial Calculator No. 1	25c.
Silo and Silage, by Prof. Cook	25c.
Bienen-Kultur [German]	40c.
Kendall's Horse-Book [English or German]	25c.
1 Pound White Clover Seed	25c.
1 " Sweet " "	25c.
1½ " Alsike " "	25c.
1½ " Alfalfa " "	25c.
1½ " Crimson " "	25c.
Queen-Clipping Device	30c.
The Horse—How to Break and Handle	20c.

We make the above offers only to those who are now subscribers; in other words, no one sending in his own 60 cents as a new subscriber can also claim a choice of the above list.

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"I would tear a man lim' from lim' if I see him a tryin' to flirt with you."

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This book was written under the inspiration of a summer season 'mid the world of fashion at Saratoga, the proudest pleasure resort of America. The book takes off Follies, Flirtations, Low-necked Dressing, Dudes, Pug-dogs, Tobogganing, and all the extremes of fashionable dissipation, in the author's inimitable and mirth-provoking style.

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The Woman's Home Companion has no equal in the excellence of its special departments devoted to Fashions, Fancy Work, Housekeeping, Floriculture, Talks with Girls, Mothers' Chat, Home Adornment, Children, etc. Of the noted writers who will contribute their best work to the columns of the Companion during the coming year we have space to name only a few: Mrs. Mary J. Holmes, Josiah Allen's Wife, Opie Read, Harriet Prescott Spofford, Julia Magruder, Hezekiah Butterworth, and many others. The Companion gives 24 to 32 pages, size 11 by 16 inches, each issue, printed on fine paper and put into a handsomely illustrated cover. Specimen copy free upon request.

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General Items.

Filling Supers Fast.

Bees are booming. I have had 71 swarms from 77 colonies. I had two swarms in March. I have taken off some honey. Bees are filling supers fast. A. BISHER.
Callahan Co., Tex., May 3.

Best Season in 1896.

I work my bees for comb honey exclusively, and I get 15 cents per pound at home for all my honey. Last year was the best season for honey I ever saw in this or any State. H. H. BROWER.
York Co., Nebr., May 4.

Bees Wintered Well.

I have about 120 colonies of bees. They wintered well last winter. I got from them about 4,500 pounds of nice honey in sections last year. WILLIAM FLEMING.
St. Crox Co., Wis., May 5.

Cold and Unfavorable Weather.

Bees wintered well here the past winter, but the weather so far this spring has been very cold and unfavorable. At present it freezes quite hard nearly every night.
C. MONETTE.
Fillmore Co., Minn., May 1.

Bee-Keepers are Happy.

Spring has come at last, and the honey-plants are coming into bloom. Bees are humming, the birds are singing, and all Nature seems to be putting on new life. The bee-keepers are happy, for there is such an abundance of snow in the mountains for irrigation, which insures one of the best honey-flows Utah has ever seen, if we can only get warm, dry weather.
E. S. LOVESY.
Utah Co., Utah, April 30.

Storing Honey Rapidly.

My bees are storing honey very rapidly now. We have a big peach, cherry and apple bloom, and the bees are making good use of the opportunity. My bees came through the winter stronger and in better condition than I ever had them before. April 24 I had the finest Italian swarm come out I almost ever saw at any season of the year, and they are doing finely. J. ALLEN ANDERSON.
Loudoun Co., Va., April 30.

Bees Working on Willow.

We have had a cold and wet spring so far with but four days that bees could work. The last week has been warm, and the bees have been busy working on willow bloom, which yields lots of honey. In 1896 my scales colony yielded 18 pounds in three day. The prospects look well for a clover crop, which has had plenty of rain. There is a lot of low land that cannot be put into corn this year, so there will be lots of buckwheat grown next fall. I have 50 colonies that are in good condition now. Times are hard, and so people will not buy much honey. I hope for the best.
Henry Co., Ill., May 1. J. F. WIRTH.

Successful Wintering of Bees.

I have read a great deal in bee-books and also in the "Old Reliable" about wintering bees in cellars, about keeping them in an even temperature, free from dampness, noise, etc.

Early last fall I tackt burlap on the bottom of the supers, filled them with chaff, and placed on each colony. November 13 I

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The Monette Queen-Clipping Device WORKS LIKE A CHARM. With it I have clipped 30 queens, all in one day, when examining my bees. WM STOLLEY, Grand Island, Nebr.

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I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now.
DR. GEO. LACKE, Newburgh, Ind.

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Mention the American Bee Journal.

put them into the cellar, and April 3 I put them on the summer stands. My cellar is very warm, as there is a furnace in it. Altho the bee-cellar is separate, it has a furnace flue running through it, and the temperature at times went up to 60 degrees, Fahr., and at other times it was below freezing. It was very damp, water running through it most of the time. There was a great deal of noise, as in tending the furnace, and also in the rooms above, such as piano playing, singing, etc., and yet out of 21 colonies but one was lost.

I put just enough straw against the window-screen to darken the cellar, and near the floor I had an opening into a heated chimney flue, which gave excellent ventilation. Had it not been for this perfect ventilation I think they would not have come out so well.

I do not see how any bee-keeper can get along without the American Bee Journal which comes, running over with bee-information, so regularly every week. Long may it live to fight the adulteration of honey, and frauds! R. RODENBERGER.

Waukesha Co., Wis., April 29.

How to Clean Kerosene Cans.

M. H. Mendleson, on page 731 (1896) says it cannot be done; but it can.

Take the cap off and put the can into the stove oven, and heat moderately, being careful not to heat so hot as to open the joints. Leave it in the oven till the odor has all disappeared.

All the refined mineral oils are very volatile, and very little heat will evaporate them.

The cans may be cleaned of other impurities, but more heat may be required.

I. W. BECKWITH.

An Experience with Bees.

I started in the bee-business in 1895 with one colony of hybrids, increast to three, and got about 75 pounds of comb honey. I wintered them in the cellar without loss. Last season I increast to 10 colonies, and got a surplus of 500 pounds of comb honey, Italianizing part of the colonies. I lost one in wintering, so I have nine to begin with this season. I am intending to Italianize all my bees this year.

Last year was good for the bees here, but this spring it is very rainy and cold. I took the bees out April 28, and they went right to work gathering pollen, but they have not workt any since. I use the Langstroth hive with 8 Hoffman frames. This year I am making all my hives 10 frames for extracting. So far I have had splendid success with the bees. FRED B. CAVANAUGH.

Missaukee Co., Mich., May 3.

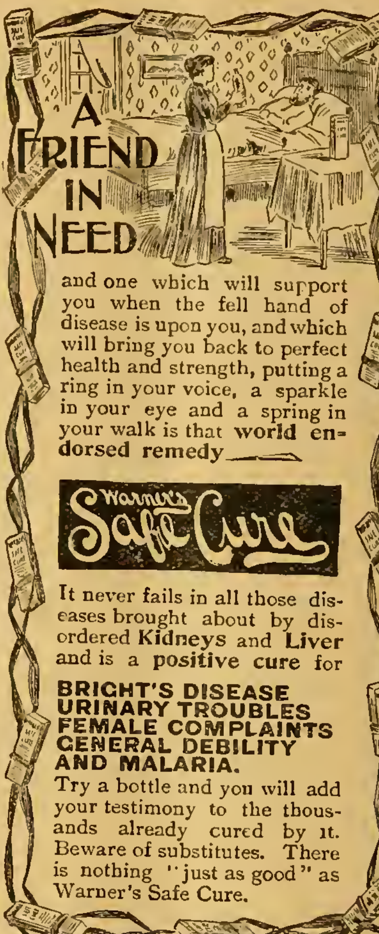
Wintering Bees in New Hampshire.

Located on the cold hills of central western New Hampshire as I am, I thought possibly that a brief account of my method of preparation of bees for winter and the result might afford a lesson of instruction to some one.

Near the last of September, or about the time the combs are cleared of brood, I examine every colony I intend to winter, carefully estimating the amount of honey. I unite my surplus colonies with those designed for wintering. Last fall I reduced 44 colonies to 25 by uniting, saving my best queens. Then if the honey in any hive is less than 25 pounds, I feed sugar syrup till they have from 25 to 30 pounds. This gives them ample stores and a good hive full of bees. I think the heat generated by a hive full of bees is a factor in safe wintering. I never have occasion to feed in the spring.

I winter my bees on the summer stands. Over those colonies that are not in chaff hives I place an outer case, packing the space between the hive and outer case with planer shavings. Over the frames I place a porous cushion, 6 to 10 inches thick. I have discarded sealed covers.

I leave the entrances open, shaded by a board leaning against the hive. I remove



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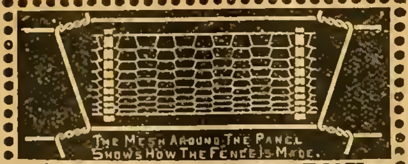
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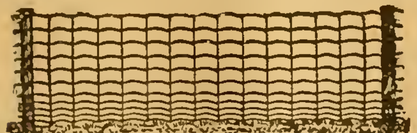

Confidence Restored.

Not Page confidence, that was never lost Sales increased every year through the late "unpro-perousness." Now comes 3 per-cent increase for the month of April. This shows that people like the **Coiled Spring** and like to buy it of the owner, rather than those who attempt to appropriate it without leave or license.

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Bees by the Pound, $1.00. Queens $1.00. Nuclei, 2-frame, with Queen, $2.50; 1-frame, $2.00. Also, **Barred & White Plymouth Rocks, and Silver-Laced Wyandottes Eggs** at $1.00 per sitting of 15. Address,

Mrs. A. A. SIMPSON,
16A13 SWARTS, GREENE CO., PA.

Mention the American Bee Journal.

the board whenever the mercury reaches 55 degrees.

In the last days of April I examined every colony and did what I could to aid the bees in "house-cleaning." I found 24 of the 25 colonies with plenty of bees and abundant stores, so they have not got to live "from hand to mouth." I saw either a queen or capt brood in every hive.

The cause of my losing the one colony was this: In uniting two colonies last fall I killed one queen, and the next day I found a dead queen at the entrance. I markt the colony, "queen doubtful." My doubts materialized. It was found queenless this spring. It is the first queen I ever lost by uniting, and the first colony I have lost in the last six winters.

I enjoy very much the regular weekly visits of the American Bee Journal, and I find its pages very helpful and instructive. I am indebted to it for many *practical* ideas.

The "New Wood Binder," for holding a year's numbers of the American Bee Journal, is a daisy. I find it very convenient.

J. P. SMITH.

Sullivan Co., N. H., May 10.

Good Prospects for Honey.

My bees came out in better condition this spring and with less loss than for several years past. Out of 30 colonies I only lost one. All six that I wintered in the cellar came out in fine condition. The rest were wintered on the summer stands, covered and packt with straw, and left open on the south. They are now in the midst of a beautiful crop of fruit and dandelion bloom, from which they are storing honey very fast. The next will be the white clover, for which there is now a good prospect.

J. S. SLEETH.

Livingston Co., Ill., May 2.

Moth-Balls in Hives, Etc.

In the American Bee Journal of recent date some one asks "if the mot-bballs hurt the bees"—a question suggested, I presume, by what I wrote a few weeks ago. In answer I will say that the bees rolled the ball to the entrance, and there it remained until small enough to be pusht out. I think that the bees didn't take kindly to it, but I could not see that it hurt them.

I put large balls in three of my hives about March 1, and they are strong colonies now, so I am confident that the bees were not hurt.

If I had only known in time how to have handled my bees I should have had "worlds of honey" this spring, but being a novice in the business, I have lost much. 'Tis said that experience is a dear teacher, but I hope to be able to overcome my ignorance by another year, and have a balance to my credit in the bank

I think I have one of the finest places for bees—there is such an abundance, as well as variety, of bee-pasturage. At present the famous horsemint is blooming, corn is beginning to tassel, soon the cotton will bloom, besides an occasional shower keeps many shrubs blooming during the summer and fall.

Bees began to swarm the first of March, and have been booming ever since.

(MRS.) M. M. DUNNEOAN.

San Patricio Co., Tex., April 27.

Poor Season in 1896.

Last year was a poor one in this county for honey-gathering, on account of the long drouth in the fall of 1895, which killed most of the clovers and other honey-yielding plants of our section of the country. My bees did not gather one pound of white honey last year—what I call salable honey. I took from them a few pounds of brown honey to make some cough syrup—I suppose about 15 pounds—and that was the whole crop for that year. It was the poorest year I ever had for the bees, and I have a long row of well-painted hives, and a good house over them, open on the south

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We do not catalog the Quinby or Hill Smokers this year, but there may be some who prefer these styles. We still have a few, and offer them at these special prices to close out:

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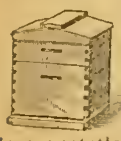

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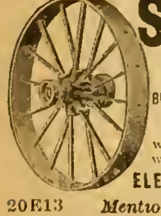

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side; and also a well set and well trimmed thorn hedge at the back of them, so they are well protected from cold and heat, and they always receive the best of care. But they won't gather honey for me when there are no honey-yielding plants, such as was the case last year. They cost me many dollars to get them through the winter, but I hope to get it all back this season, and more besides, for all is fair for a good honey crop this summer, provided the weather is suitable, so that bees can work. Our pears, cherries, and other small fruits are now in full bloom. ELISHA CAREY.

Bucks Co., Pa., May 2.

◆

Too Cold for the Bees.

This weather the bees have to remain at home while the apple trees are just a few feet above their heads in full bloom, and have to content themselves with their mother by singing "Gentle Annie" in her ear, and telling her there are better days dawning; while what few drones have made their appearance are "trembling in their boots," as the honey grows less. They know it's good by "sweet home" when the bees say to them, "Self-preservation is the first law of our hive." It puts me in mind of a lot of women cleaning house. Some have a drone by the ear, leading him to the door; others leading him out under the whip; some drones are at the entrance on the wing, singing "Boom-de-ay;" some are piled up outside of the hive on their knees, praying for a honey-flow. Oh, by the way, the bee-man is, too, and if the honey comes the bees will come to the door and say, "Now, old paps, we were just joking when we fired you. Come in Bill, Jake, John, Sam and Ike; but if honey gets scarce again, you will have to pack your grips and start for Frazier river, or go to India to see your big relatives, the Apis dorsata."

GEO. POINDEXTER.

DeWitt Co., Ill., May 1.

◆

Experience in Wintering Bees.

I had an experience in wintering the bees in one of my yards that was somewhat of a surprise. Late last fall I had to rebuild my bee-cellar at this yard. It had been made of slabs and dirt, but I rebuilt it with a stone wall; it being so late the wall did not dry out, the cellar was so damp I feared heavy loss among the 65 colonies it contained. About the middle of winter I had a load of dry oats-straw and chaff scattered on the cellar bottom and over the hives. The temperature was kept at about 40 degrees; toward spring, after very wet weather, water was found standing 8 or 10 inches deep in the cellar—the hives had been placed 14 inches from the floor, so no water got in them. The water stood thus in the cellar for over two months before those bees were taken out, which was the middle of April, and they came out in good condition, with very small percentage of loss, and nearly all strong. So much for good luck. HARRY LATHROP.

Green Co., Wis., May 1.

◆

A Tensessee Rejoinder.

Mr. Wm. Webb said, on page 204, that it was a very good thing that one man did not know it all. Yes, he is just right, for if he had known what the word "system" means he would not have written as he did. Webster's dictionary says: "System—connected assemblage of parts or things, regular order or method. Systemize, to reduce to a system, or regular method; to methodize."

There are 42 bee-keepers in my settlement, and only two men are keeping bees in movable-frame hives. Mr. W. said he was not able to say how many practical bee-men there are along the Smoky mountains. I have been on both sides of his home, through 13 counties, east and west directions, and there are at least 20 keeping bees in logs and plank gums to one in movable-frame hives. So it can readily be seen that a regular method is the system.

My article on Smoky mountain bee-keeping does not insinuate that there is not a practical bee-keeper in or along the Smokies. There are several, and in the wealthy parts of the State there are a great many practical bee-men.

Bees are in fine condition here. If the honey-flow comes all right, they will "get there" all the same. G. W. WILCOX.

Blount Co. Tenn., May 2.

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J. M. Jenkins, Wetumpka, Ala.

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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., May 6.—There is very little honey coming to the market, and fine lots of white comb brings 13c. Yet only a little is taken by the dealers, the season for it being over with the coming of strawberries, which are now plentiful. Extracted brings about late quotations, with beeswax in active demand at 27@28c. for best grades.

San Francisco, Calif., May 6. — White comb. 9-10c.; amber, 5-7c. Extracted, white, 5½c.; light amber, 3¼-4c.; dark tule, 2¾c. Beeswax, fair to choice, 25-27c.

New York, N. Y., May 8.—Market quiet at present at unchanged prices. Old crop well cleaned up. Will have new crop within the next week, both comb and extracted, from the south. We expect a fairly good summer trade at fair prices.
Beeswax is weak at 26c.

Detroit, Mich., May 1.—Fancy white comb, 11@12c.; No. 1. 10@11c.; fancy amber, 9@10c.; No. 1. 8@9c.; dark, 7@8c. Extracted. white, 5@6c.; amber, 4@5c; dark, 4c. Beeswax, 25@26c. Demand is slow for honey, and plenty in commission house.

Kansas City, Mo., May 14.—No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1, 10@11c.; fancy dark, 9@10c.; No. 1, 7@8c. Extracted, white, 4½@5c; amber, 4@4½c.; dark, 3½@4c. Beeswax, 25c.

Cincinnati, Ohio, May 7. — Demand is slow for all kinds of honey. Comb honey, 9@14c. for fair to choice white; extracted, 3½@6c. There is a fair demand for beeswax at 22@25c. for good to choice yellow.

Minneapolis, Minn., May 1. — Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Philadelphia, Pa., May 1 — Fancy white comb, 12-13c; fancy amber, 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3½-4c. Beeswax, 25c.
Season is getting over for comb honey—very little demand. Extracted in good demand.

St. Louis, Mo., May 1.— Fancy comb, 12@@13c.; No. 1 white, 11@11½c.; amber, 9@10½c.; dark, 7@8½c. Extracted, white, in cans, 6@7c.; amber, in barrels, 4@4½c; extra, 5c.; dark, 3@4c. Good demand for barrel stock—comb slow sale. Beeswax, 23@23½c.—prime finds ready sale at 23½c.

Albany, N. Y., May 1. — Fancy white, 12-13c.; No. 1, 11-12c.; fancy amber, 9-10c.; No. 1, 8-9c.; fancy dark, 7-8c.; No. 1, 6-7c. Extracted, white, 5-6c.; dark, 3½-4c.
Demand is all that could be expected at this season. Stock on hand small.

Indianapolis, Ind., May 1. — Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.
Demand is fair for grades quoted, but no demand for inferior grades.

Buffalo, N. Y, May 7.—Strictly fancy comb, 1-pound, mostly 10 and 11c. today. Demand is only fair at present. Other grades range from 5@9c. Extracted, 4@5c.

Boston, Mass., May 1.— Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Cleveland, Ohio, Feb. 20.—Fancy white, 14½@15c.; No. 1 white, 12½@13c. Extracted, white, 6@7c.; amber, 4½@5½c. Beeswax, 22@25c.
There is not very much honey in our market. Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

A. P. A. may, or may not **B. O. K.**
OUR APAry is non-partisan and deals in strictly first class Italian Queens—Tested, 90c Untested, 65c. 1-fr. Nucleus, 65c.; 2 fr. $1.10—discount on quantities. M. O office, Sparta, Tenn. **COOPER & GILLETT,**
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C. C. CLEMOMS & Co., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
WILLIAMS BROS., 80 & 82 Broadway.

St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.
S. H. HALL & CO.

Milwaukee, Wis.
A. V. BISHOP & CO.

Boston, Mass.
E. E. BLAKE & Co., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
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Albany, N. Y.
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Cincinnati, Ohio.
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Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

What About the New Drawn Foundation for Section Honey?

Query 49.—Is it advisable to use in sections foundation with side-walls ¼ or ⅜ inch high?—Mo.

Wm. McEvoy—No.

Jas. A. Stone—No.

R. L. Taylor—Query.

E. France—I think so.

J. A. Green—I think not.

P. H. Elwood—Yes, if not to heavy and costly.

W. G. Larrabee—If it does not make more "fishbone," yes.

A. F. Brown—I could not say, having had no experience with it.

Prof. A. J. Cook—I have not tried it, but I see no objection if the bees thin it down.

Dr. C. C. Miller—Certainly, if you can have it about the same weight as natural comb, and it doesn't cost too much.

Emerson T. Abbott—Ask the fellow who has time to "split hairs." I have been too busy getting a living to find out.

C. H. Dibbern—Yes, if the honey thus produced is just as nice as if very thin foundation had been used. Try it, and report.

J. E. Pond—The matter of high side-walls is of recent orign, comparatively. If they can be made leaving the septum very thin, I can see no reason why their use will not be advantageous. The only trouble that I have heard of as yet in the use of foundation in sections is, that it cannot be prest thin enough to compare with honey where the comb is made entirely by the bees.

Rev. M. Mahin—I have never used such foundation, nor seen it. I doubt the propriety of using such foundation in sections.

Dr. J. P. H. Brown—I have no experience with ¼-inch side-wall foundation. It might prove very satisfactory. But until I know this, I will use and be satisfied with foundation of less pretentious side-walls.

Mrs. L. Harrison—We sell our honey in a home market, and use only small starters of foundation in the sections at the top. Our honey has the reputation of tender comb, and we will not risk injuring it by its use in the way mentioned.

G. W. Demaree—It will require careful experimenting along this line before your question is answered in a practical way. I do not think it "advisable" to use anything but very thin starters till a thorough test is made as to the practicability of using deep-cell starters.

G. M. Doolittle—Why not, if it is advisable to use any kind of foundation? There has not been a word said against foundation with side-walls from 3/16 to ¼ inch high, but what would apply with equal force to any of the foundation now before the public, or that of the past.

Eugene Secor—That will have to be answered by experiment. If foundation with side-walls ⅜ inch high can be manufactured weighing no more per square foot than the thin foundation now in use, and if it can be sold at about the same price, I think it will be found of practical value.

Dr. A. B. Mason—It is not the hight of the side-walls that is to be considered, but the thickness, and it is possible that if the side-walls are made as thin by machinery as the bees make them, that it would not be advisable to use it; but the matter can only be settled by trying such foundation.

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Smoke Engine, 4-in. stove [Largest smoker made.]	$13 00	each, $1.50
Doctor....... 3½ in. stove	9 00	" 1.10
Conqueror....3 " "	6.50	" 1.00
Large.........2½ "	5 00	" .90
Plain... .....2 " "	4.75	" .70
Little Wonder 2 "[wt.10 oz]	4.50	" .60
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" 25 "	25	"	50 " "
" 20 "	20	"	40 " "
" 10 "	10	"	20 " "
" 5 "	5	"	10 " "

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37th Year. CHICAGO, ILL., MAY 27, 1897. No. 21.

Contributed Articles

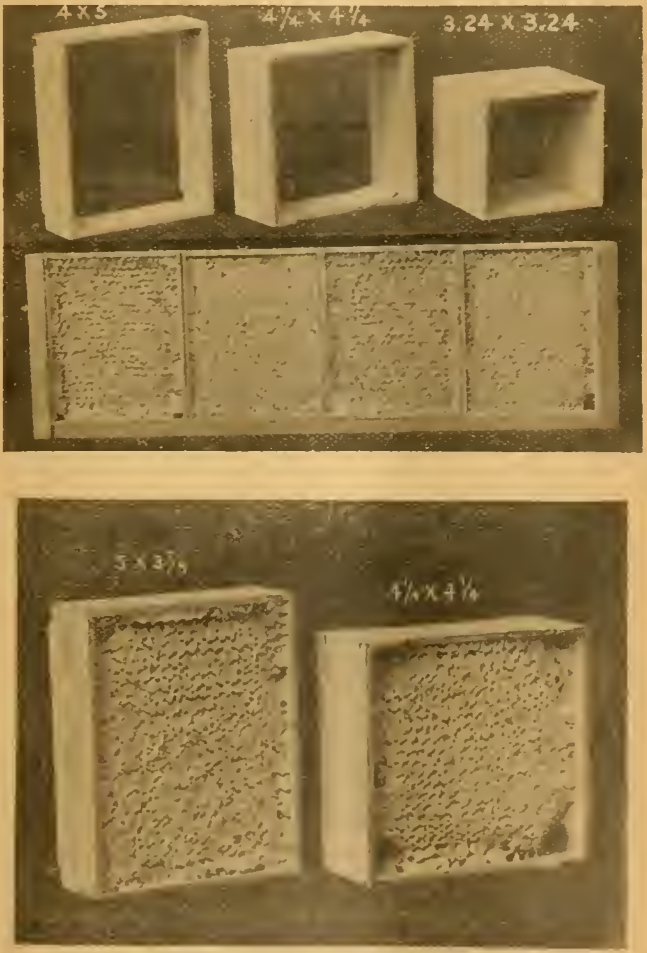
A Defense of the "Detestable" Bee-Space.

BY W. Z. HUTCHINSON.

In the American Bee Journal for April 29, I find an article in which the writer severely and unjustly condemns the bee-space that has so nearly universally come into use. The great objection brought against these spaces by this writer, who signs himself "Common-Sense Bee-Keeping," is that they allow the escape of heat. If the heat rises and escapes from between two combs, pray where does it escape *to?* Into the adjoining spaces, of course—where else can it go? If the heat from one space escapes into the adjoining spaces, and that from the adjoining spaces escapes into the first-mentioned space, where does the loss come in? The illustration about the heat escaping from a hen's nest, if there were a lot of holes in its bottom, is not a parallel case, as in that case the heat escapes into the open air and is lost, while in the bee-hive the heat is *still in the hive.*

I know that our "common-sense" friend says that the heat escapes over into the farther corners of the hive away from the bees, and that it there "condenses and wastes." I am at a loss to know what he means by its "condensing." I know that steam can be condenst into water, or that we can condense the rays of the sun by passing them through a lens, etc., but I fail to understand how heat can be "condenst" if it escapes into the corner of a bee-hive.

When the weather is cold, or even cool, a colony of bees contracts, the outer part being especially compact, thus forming a sort of covering, or natural hive, as Cheshire calls it, and inside this crust of bees the temperature may be, and often is, raised to over 90°, while the outside is below the freezing point. If we could make a hive that was exactly the size and shape of a contracted cluster or colony of bees, and thus have the bees completely fill it, there would be no need of this crust or natural hive of bees; but this would be well-nigh impossible, as the clusters would vary so in size. When a colony is compactly clustered—when its outside is thus covered with this crust or living hive—some heat is, of course, radiated from the cluster. This rises until it strikes the ceiling of the hive, or whatever is over the cluster; but, as I have already askt, what difference does it make whether the heat between any two combs rises by itself and then spreads out until it reaches the outside wall of the hive, or if the heat from all of the spaces joins in a body and spreads out until it reaches the walls of the hive? It is *possible* that there is a difference, but I fail to see it.



Square vs. Oblong Sections.—See page 329.

But let us suppose, for argument's sake, that there *is* a difference—it would be better to cover the brood-nest in winter and spring with a sheet of enameled cloth, and a chaff cushion over that, and even go to the trouble of inverting each hive at the beginning of winter and pushing a thin board or cushion up at the ends of open-end frames so as to make them close-fitting; it would be *infinitely* better to go to all of this trouble than to attempt to handle bees all through the working season with no bee-spaces. How any one who has had practical experience with bees could think of such a thing as putting the sections right down on the tops of the brood-frames, and one tier of sections down upon another, is beyond my comprehension. There is certainly no call for it on the score of retaining the heat, as there is heat enough and to spare during the honey harvest.

Take off the cover to a bee-hive. Look down upon the top-bars of the frames. See how they are covered with bees. Now think of setting a case of sections right down on those bees and crushing them! Suppose, further, that the section-case has been on the hive, and is occupied with bees, and the bottoms of the sections are covered with bees. These, too, will be crusht when the case is set down. Of course, these bees can be driven back somewhat with smoke, but by the time that the smoker is set down and the section-case pickt up and ready to be put in place, a goodly share of the bees are back again on the outside. The fewest bees will be killed by sliding the case on instead of setting it down, but even then many bees will be caught by the heads, legs, etc., and mangled to death.

But this is not all; wherever these sections or frames come in contact, there will be a deposit of propolis, daubing up everything and sticking them together, and, unless wide frames are used, there will be a big job of cleaning the propolis off the sections when crating for the market. With a bee-space all this is avoided.

I know that once or twice before some one has advocated "continuous combs and continuous passage-ways," but such advocacy has always been short-lived.

A bee-space is well-nigh a necessity in modern bee-culture, even if it did possess some drawbacks, which I have failed to find in all of my bee-keeping. Genesee Co., Mich.

Some Things Learned Last Season.

BY L. M. WILLIS.

I notice on page 232 an invitation to a sort of "experience meeting," and as I always like to "speak in meeting," I shall accept the invitation, but would like to suggest, as an amendment, that we do not all wait till the end of the season. What some of us learned in 1896 may be the very thing that somebody wants to know to help him through this season.

I opened the season of 1896 with 31 colonies in 8-frame hives, increast to 63, and took off about 2,500 pounds of honey, 1,800 of which was in one-pound sections; the balance was extracted. I sold 13 colonies, and put 50 into cold storage; 49 of them came through all right; which is five times that my cold-storage plan has workt successfully.

I learned in 1896 that all commission-men are not rascals. I sold some of my crop to one who did just as he agreed in every particular.

I learned that from an artistic point of view the sections open on all four sides are by far the most attractive, and when the scallopt wood separator is used with them we have a package of honey as near perfection as we need it. Another point in its favor, and an important one, is that the bees can work lengthwise of the super, which is the nearest like the brood-nest. Without separators there will be fewer bulged sections. Again, it is less trouble to put foundation into them, as they will work either side up. Sections open on two sides look clumsy compared with them, and one has to keep his thinking cap with him all the time to avoid getting the foundation on the wrong side. Try some of the open-four-side sections this season and report result.

For scraping sections a glazier's putty-knife is worth its price many times over. Another good article for all kinds of scraping, such as bottom-boards, inside of hives and frames, as well as sections, is a cabinet maker's scraper, which is a flat piece of tempered steel 1/16 of an inch thick, and of different sizes. The one I use is 3x5 inches, square cornered. Both of these tools can be kept sharp by filing square across the edge, and work similar to a plane, by using the corners for the work. Try them.

I have learned that we need a bee-escape with several outlets. A little piece of burr comb sometimes turns a bee-escape into a bee-trap, and if the day and night following its use are sultry and hot, a super full of smothered bees will be the result.

I have learned, also, that an entrance-guard will shut out too much fresh air on a hot day, and, if ventilation is not given above, you may drown your bees in their own sweat.

I have learned, too, that the American Bee Journal is a very great help to me all through the year. I have kept bees seven years, and am an enthusiast—(I guess that is the right word; any way I like bees)—on the subject; and have been well paid for all the time given to them.

Clark Co., Wis.

Purity of Italian Queens and Drones.

BY JOHN M'ARTHUR.

Purity of Italian queens and drones is a question that has been propounded of late, and answered by such veterans as Dr. C. C. Miller, Dr. J. P. H. Brown, and Dr. Gallup. The latter, joining with his brother professionals, states his ideas of purity of queens and drones. From what he says, those of us who are laboring towards the improvement of Apis mellifica had better stop and waste no more of our valuable time in that direction, because his idea of purity is already reacht; what we are doing now is towards the production of mongrels, so says the Doctor on page 550 of the Bee Journal for 1895. On page 743 (1896), the following appears:

> "If we rear queens without proper nourishment or lack of warmth, we can rear black queens from the very best markt mothers. A queen-cell may be so located in the hive that a few days, just at the right age, of cool, damp, rainy weather will change the queen's color, yet it does not affect her purity."

This is certainly something new to the scientific world, and a wonder how this should have escaped the keen eyes of Huber and Darwin. I have never observed, nor ever read of those sudden changes in Nature. I admit a certain amount of flexibility or pliancy—climate, food and habit may produce a tendency to change. No matter how fixt the different characteristics may be when left in Nature's hand, those changes are very slow, but accurate; but when in a state of domestication they occur oftener, and to a much greater extent. Our bees, altho domesticated, are only to a certain extent under our control—we cannot control the mating of them, and never will. The nearest approach to that is isolation, so that the sudden changes referred to cannot be produced by their domestication, but an application of the physiological laws or the laws of breeding, may explain why those black queens were produced, from the fact that the mother may or may not have been pure; she certainly had not been purely mated, because the Doctor says, "This can be done from the very best markt mothers."

Now if we have a pure yellow queen, and from a line of ancestors that for many generations had shown those markt characteristics mated to a pure drone whose ancestors had the same characteristics, well defined, it is in opposition to Nature to expect anything but like to beget like; the progeny always and everywhere resemble their parents, so the pure yellow queen having been mated to a pure black drone, the results would be a mixt progeny, a percentage being yellow, the majority black, because the black fathers had a line of ancestors extending possibly to thousands of generations unbroken, whereas the yellow mother may not have had a line of ancestors extending to ten generations unbroken, owing to the predominating influence of the blacks. This is the more reasonable cause of accounting for the production of black queens, the progeny of yellow. According to Dr. Gallup's reasoning, Nature would be disordered, and creatures who bring forth their young in rainy or cold seasons, if the parents were white, the offspring would be black, and those of us who are poorly fed in those hard pinching times, may look for colored progeny as the result. If the Doctor will take the trouble to read this article, and digest it thoroughly, he will, if not wedded to pet theories, or blinded by self-interest like many others, be convinced that he has written erroneously.

In describing Aaron Benedict's experience on Kelley's Island, in Lake Erie, with progeny from his first imported queen, the Doctor says: "Queens reared from her were as black as crows, and he decided the mother queen was worthless, and destroyed her. I had quite a discussion with him in N. C. Mitchell's journal, but could not make him own up, for if you convince a man against his will, he is of the same opinion still. So I dropt him in disgust." Possibly the Doctor may have to be left where he left Aaron Benedict. Aaron was right, tho, and so am I.

On page 574 of the Bee Journal for 1895, are some questions on the purity of Italian bees by A. P. L., of Batesburgh, S. C., and answered by Dr. J. P. H. Brown, who says: "I you wish to keep your bees pure, you should have all Italian drones in a radius of four miles." This is sound advice. Now the question is, What constitutes an Italian drone? Is an Italian drone black, brown, mottled, or what color is he? He should be of some fixt type, because, as a rule, the queens are yellow or bronze, and the Italian worker, if pure, must have three yellow bands, and every one so. Now when there is such an exactness in fixing the type of the worker why not fix on a type for the parent with the same exactness? It seems to me more reasonable to look to the drone for a type than to the worker, because parthenogenesis in the queen removes the effect of a union with a second parent, as far as the production of drones is concerned, thereby making doubly sure the fixedness of every characteristic, especially color. The drone should be an exact copy or type of the mother, if she is herself pure or of pure origin. That is to say, if the queen shows three or more yellow bands, the balance of the abdominal segments being bronze the drone should be similarly markt, because, as has already been said, like begets like; the drone having no father, the queen taking the role of both father and mother.

From this it will at once be seen that there should be no uncertainty as to what color the drone should be. If the mother is yellow and of pure origin the drone will be of the same type, just the same as a black queen of pure origin the drones will be black.

The Doctor says: "There is not one queen in fifty that will invariably duplicate herself in marking in her queen progeny." The Doctor, perhaps, is not aware of the fact that every queen that has been produced on Toronto Island for the past three years, not only duplicated themselves invariably in markings in queen progeny, but in workers and drones also, the drones being as yellow as the queens. I hope to be excused for thus writing, because the Doctor seems to ignore invariable yellowness as the test of purity in the yellow race. He will admit invariable blackness as the test of purity of our native bees. We all know the results of a pure black queen mated to a pure black drone—black offspring, of course—queen, workers, and drones. Then why should not a pure yellow queen, mated to a pure yellow drone, produce similar results, all things being equal?

Having toucht slightly on the law of similarity, we come now to a second law, viz.: variation or divergence, by which that of similarity is greatly modified. All organic beings, whether plants or animals, possess a certain flexibility or pliancy of organization rendering them capable of change to a greater or less extent. Climate, food, and habit are the principal causes of variation which are known to be in any markt degree under the control of man. It would be useless for us to speculate here upon the laws that govern variation. The fact that these exist is what the breeder has to deal with, and a most important one it is, for it is this chiefly which makes hereditary transmission the problem that it is.

The knowledge of this law gives us a clue to the causes of many disappointments, of which practical breeders often complain, and many variations otherwise unaccounted for, such as red heads, black heads, white heads, and cock-eyed babies appearing in our families, which the Doctor refers to. A knowledge of this law suggests particular caution as to the first male employed in the coupling of animals. It will at once be seen we have nothing to fear from this in the mating of queens—once mated, always mated.

It is a known law among breeders that whenever a pure female of any breed has been pregnant to an animal of a different breed, such pregnant animal is a cross ever after, and forever becomes incapable of producing pure stock of any kind. From this cause has arisen many new varieties or types, so that those who are now engaged in the perfecting of Apis mellifica can rest assured that all risks are removed as far as often mating is concerned in the queen, removing one of the greatest difficulties that the breeders of live stock has to contend with.

From what has been said it will be needless to give illustrations, of which a journal could be filled, personally observed and by others, arising out of this law, and it applies not only to our bees and other domestics, but let us bring it home to ourselves. I see nothing more mongrel in nature than some of the human family. Were the physiological laws, or laws of breeding, better understood and more widely diffused among all classes, crime and disease would disappear, prisons and asylums would be removed, doctors, lawyers, and ministers would be less required. Man would become physically, mentally, and morally improved—in fact, such would be the change in a few generations that many would be led to believe the Millennium had dawned. This should be taught in our common schools of learning, and preacht from the pulpit. Please pardon me for digressing.

On this continent our bees, known as "natives," like ourselves, are of mixt foreign origin, and have been bred with no care in selection, but crost in every possible way. They possess no fixt hereditary traits, and altho among them are many of respectable qualities, and which possess desirable characteristics, they cannot be relied upon as breeders to perpetuate like excellence in their progeny. Instead of constancy there is continual breeding back, exhibiting the undesirable traits of inferior ancestors. That a breed might be establisht out of this chaos, by careful selection, aided by judicious crossing with more recent importations fully as good as any now existing, is not to be doubted. To accomplish this perfect isolation has to be sought, and then the work to be in the hands of those who possess the skill, enthusiasm, ample means, and indomitable perseverance requisite to success.

The deprest times makes it a very difficult matter for one with limited means to carry on an enterprise of this kind. It just means a lifetime devoted to close observation and careful study, such as Charles Colling, Mason, Bates, Boothe, and Bakewell conducted in the improvement of our cattle, sheep, and our other domestics. No adequate estimate could be made of the advantages accruing from the labors of those worthy men—advantages we have all shared in—by whose indomitable perseverance and skill a very extensive portion of the world has been blest. Such labors, whether in the improvement of our bees or other domestics, is as much a triumph of science and skill as the construction of a railroad, a steamship, an electric telegraph, or any work of architecture. If any doubt this, let him ponder the history of those breeds of animals which have made Great Britain the stock-nursery of the world to-day. Let him note the patient industry, the genius and application which have been put forth during this century, on this continent, to bring them to the condition they have attained, and their doubts must cease.

Such a field is certainly open for the improvement of our bees. Scarcely a paper comes to hand but contains something encouraging on this line. I congratulate Prof. A. J. Cook for that masterly article on page 759 of the Bee Journal for 1896. Such articles invigorate and renew our courage, making us more willing to wait, and go on unmindful of what the public think or the market desires, looking for our reward in the away-off future. Ontario, Canada.

[Concluded next week.]

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Bee-Escapes—Reasons for and Against.

BY DR. C. C. MILLER.

Mr. Editor:—On page 289, your interesting South African correspondent raises the question as to why there should be such wide divergence of opinion among bee-keepers, illustrating it by pitting Mr. Simmins and myself as at opposite extremes concerning bee-escapes, practically saying that I laud them sky-high. I don't know just what I may have said in some unguarded moment that should have given Mr. Deacon such an impression, but as a matter of fact I do not use a bee-escape upon a hive. I know that many of the best bee-keepers—I think a large majority of them—think highly of them, but they don't suit my circumstances.

Mr. Simmins gives as one of the most forcible arguments against their use the fact that the bees, frightened by the lifting of the super, make countless pin-holes in the cappings. This affords another illustration as to difference of opinion, for after considerable experimenting with them I insist that bees do nothing of the kind. Now I'm not going to make faces at Mr. Simmins, or call him names, because his statement does not agree with actual facts in my experience. I have high respect for him as a bee-keeper of ability and veracity. Because I have seen no holes gnawed in the cappings, I have no right to say he has never seen anything of the kind. Very likely the explanation is the difference in our bees. I aim to keep Italians. I think he does not.

My reasons for not using escapes are different from his. I can't wait for them. When I go to an out-apiary I want to take home with me the honey I take off that day. I don't want to be obliged to make an extra trip next day to go back after the cleared supers. Even in the home apiary I want to finish up the same day, for most likely I want to start off early the next morning for a full day's work in an out-apiary. If it suited me to do the work on parts of two different days, I should not like to leave the escapes on a hive over night, for all the boys in my neighborhood don't go to Sunday-school, and the temptation to carry off a super emptied of bees would be much greater than if the same super were defended by a thousand poisoned javelins. McHenry Co., Ill.

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California Again—Blanketing Bees.

BY F. A. GEMMILL.

I see that Messrs. Brodbeck and Gallup—who are among my California friends—contribute occasionally to the American Bee Journal. I liked California when there, and like it still.

I observed in the California Cultivator for April, which was kindly sent me by Dr. Gallup, that I am reported as blanketing bees here in Ontario, Canada, where it is cold enough for a bear to wear overshoes; that the outlook for a good crop the coming season is promising; and that I also sigh for a re-visit to the land of perennial flowers, where milk and honey flow. Yes, Mr. Levering, that is correct; but I am not so "dead struck" on California that I cannot make a success of apiculture here, although I am accused of blanketing bees in winter!

Say, Mr. Editor, just you whisper in the ears of those milk-and-honey bee-keepers, through the columns of the American Bee Journal, that this Canadian tenderfoot expects to have "just a lovely time" this summer among his bees, and also procure a No. 1 crop of comb honey from his 92 colonies, which wintered without the loss of a single colony, and without blankets, either! They were of course packt with forest leaves, and each colony had a good supply of well-ripened, sealed stores, with slight upward ventilation through a propolized quilt, or a ⅜-inch pine board for a cover, over which was 18 inches of leaves, well prest down. There was an air-space between the top of the leaves and the cases to the outside packing case. The hive entrances were ⅜ by 3 inches. That was the secret with me, and any one can do the same thing if he tries.

By the way, why did those Californians send Mr. Alpaugh home? Yes, he has actually returned to Canada, and paid me a visit a few days ago while on his tour prospecting for a location to again settle in his native clime. Was it the poor seasons of late in California that discouraged him? My inquiry only brought out a submerged reply, to the effect that fleas, scorpions, rattle-snakes, tarantulas, lizards, lions and grizzly bears were numerous. Said information seemed to please my wife so much that she at once said, "Now, Frank, I *thought* there was something there besides oranges, fruits, flowers, and perpetual sunshine! I don't care, I won't go one foot to such a country!" I am, however, hoping that she will some day go, and take both her feet with her, if it is only to see the country.

Of course, I saw a lion and a bear, too, but they were in cages on the top of Mount Lowe, and all the other things were on card-boards, sold in curiosity shops, and could not bite a little bit—for they were dead.

Ontario, Canada, May 3.

New Union and the Bee Journal.—In order to help our subscribers, and also the United States Bee-Keepers' Union at the same time, we have decided to offer a year's subscription to the American Bee Journal and a year's membership dues in the New Union, both together, for $1.75. But it must be understood that in order to get this rate, all arrearages of subscriptions must be paid, and the $1.75 rate to apply on advance subscription.

Now send us your orders, and we will attend to turning over the $1.00 membership fee to the New Union, on each subscription to the Bee Journal as per the above offer. This ought to add 500 members to the New Union by June 1. If it does, our contribution will be just $125.

Now, if you want to see the New Union succeed in its grand work, in the interest of *all* the bee-keepers, come on with your cash. General Manager Secor is just aching to do his part whenever he sees sufficient funds in the treasury to pay the bills.

The Horse—How to Break and Handle.—This is a pamphlet of 32 pages, giving complete instructions for breaking and educating colts, teaching horses to drive, and for use under the saddle, together with many instructions which have never before been publisht, and which are the result of the author's experience covering a period of 20 years. By Prof. Wm. Mullen, with whom the editor of the Bee Journal is personally acquainted. Price, postpaid, 20 cents; or given as a premium for sending us one new subscriber to the Bee Journal for the rest of the year at 50 cents.

Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offer above.

CONVENTION PROCEEDINGS

Report of the North American Convention Held at St. Joseph, Mo., Oct. 10-12, 1894.

REPORTED BY LOUIS R. LIGHTON.

THIRD DAY—MORNING SESSION.

[Continued from page 310.]

The next on the program was the annual address by the President, which was delivered as follows, by Rev. E. T. Abbott:

THE PRESIDENT'S ANNUAL ADDRESS.

Ladies and Gentlemen, and Fellow Bee-Keepers:

I had hoped that I would get 15 or 20 minutes to myself that I might jot down a few things which have past through my mind during the last five or six weeks, and some things which have past through it since you came here. You who have been here and seen what I have had on my shoulders know that I have not had much time for anything of the kind, as I have felt it my duty to give myself up to your comfort, and to aid you in every way I possibly could. I have just taken time to go to my office and see what was there, but have let my business alone, and given myself entirely to the meeting. I have been absent from the city for a few weeks, and work has so accumulated that it was impossible for me to give any time to a formal address.

I hardly ever make an apology, as I generally tell what I know; and, when I run out of things I know, I tell what I do not know.

My experience among bee-keepers, and, in fact, among people engaged in every kind of industry, has thoroughly demonstrated to me the fact that business in this country in the future must be done on closer lines and a more economical basis; there can be no question about that. We have enjoyed the benefit of this great and wonderful country of ours without thinking of the possibility of there being any change, or of adverse times coming upon us; and now that they have come on us, we find ourselves unprepared for them, or at least many of us are, and the result is that all such have been made to suffer. I know how it has been in other cities when there was a few financial failures, and some of the banks had to close, but we have had nothing of the kind here. We had a run on one of our banks, but it did not affect it, as it was prepared for such an emergency, and then some of us interested ourselves in the bank's welfare, appealed to the men and women to go home and use good judgment, and we succeeded in getting them to do so, and the scare past off, and we got rid of a serious financial embarrassment; but, notwithstanding this, the people who are in debt, and who have not learned to do business on a cash basis, have suffered here as well as in other places.

Here is a lesson to the bee-keepers—not only the idea of paying cash for a thing when they get it, but the idea of doing all business on a cash basis—the idea of working just as if they expected something of the kind to come every year. I know what would be my condition, financially, if I had not done business along these lines for the last ten years. The reason I make these remarks is, the subject of commission-men has been prest on my mind by two or three letters which I have received lately from bee-keepers who wanted this subject brought up at this convention. I was led to make a remark yesterday that I thought needed some explanation, and I think this a good time to do it.

You will remember that I said that the commission business was a "humbug." Now, I did not mean to say by that that our commission-men were "humbugs," or that those of any other city were humbugs. I do not think there is a single man in this business in our city who could not be depended upon to do just what he agreed to do, but at the same time if I had 5,000 pounds of honey to sell, and lived 40 miles from here, I would not ship that honey to any commission-man, unless he bought it before I shipt it, because I do not think that the proper way to do business. If a man is not able, by virtue of some disability, to transact his own business, it may then be well enough for him to employ a man to sell his goods on commission, but if he feels that he has ordinary push and ordinary business capacity, he would better take his own business in his own hands. For, when he commits his business to others, he is nearly always dissatisfied with the way that the business is conducted. In many cases there is, or may be, no ground for his dissatisfaction, but he will think there is, all the same, and the result is hard feelings.

I know a man who sent a lot of honey to a commission-man in Kansas City, and the merchant held the honey for a long time, and did the best he could with it, as he claimed to me, and finally made a report; and that honey netted the producer two cents per pound—for comb honey! I wrote a letter about it to the commission-man and askt for an explanation, and received what seemed to me a satisfactory one, and I think probably the man did the best he could under the circumstances.

The trouble seemed to be with the man at the other end. He lived a long way from Kansas City, and he did not think of the amount of freight it would cost to get this honey to market; he did not inquire what it would cost to lay that honey down in Kansas City. He did not seem to think of the fact that he was located on a railroad which charged high freight rates, neither did he think of the possibility of that honey arriving in bad condition, as I was told that it did. Now all of these things, of course, affected the net price of the honey. It arrived in bad condition, and the freight was very high, and when this and the commission were taken out there was not much left for the shipper, but the commission merchant was not to blame for this, if he got all he could for the goods.

I shipt a hive once myself, to a man in Tacoma, Wash., and I sent it by the cheapest way I could, but when it got there the freight was $3.00, and the hive cost only $1.25. I supposed that the man wanted it, as he sent the money for it when he ordered it, and I supposed also that he had made inquiry what it would cost him to get it, but it turned out in the end that he lost the hive rather than pay the freight. Now this was a mistake on the part of the man who ordered the hive; he was foolish to order a hive so far away without making any inquiry what it would cost him by freight or express to get it, unless he wanted it so badly that he could afford to pay whatever it might cost. But, as to honey, I know in many cases the trouble is with the shipper.

You will infer from what I have said that I do not think the commission-men are bad men, but I do think we make a mistake when we depend on them to sell our goods. I do not think any bee-keeper should permit his honey to leave his own hands until he knows the exact amount of money he is to receive for it. I do not think it requires any extra skill to sell honey; it simply requires that you go about it and do it, and begin *at home.*

There is another thing I want to speak of, which was suggested to my mind by the Farmers' Institutes, which I think might be a good thing for this Association. I discovered when I attended the first institute this fall, that the Board, through the Secretary, had made arrangements to offer premiums for the best display of nine different articles, such as butter, wheat, corn, etc. The premium was the choice of any agricultural, bee, poultry or general farm paper publisht in the State. Now, would it not be a wise thing for this Association to take up something of this kind in the shape of premiums? It would increase the circulation of the bee-papers, and be a benefit in many ways, I think. Let the person who gets the premium select the paper he or she wants, and then there can be no trouble about favoring one paper more than another. Of course, the publishers of the papers should put them in to the Association at a low rate.

That is the way the agricultural papers of this State do. It will cost the State of Missouri $150 or $200 this year, but this means something. It means the education of the people, it means lifting men to a higher level. So it would be by the distribution of bee-papers; their circulation means the elevation of the bee-keeping fraternity. There is not a bee-paper publisht in North America but what the reading of it would be helpful. Whatever bee-paper a man reads will lift him up a little. The bee-keeper who fails to read, or does not take any papers, will never succeed. Well, he may succeed after a fashion, but he will never get very much enjoyment out of life. It seems to me that this Association could not do a better thing than to place in the hands of some of these people one of the bee-papers. It would not cost much, and in my opinion the money would be well spent.

I have been thinking of the general public and their relation to this meeting. I do not like to complain of any of my fellow citizens, but I will say I am sorry more of them have not found time to look in upon us, especially the evening of the reception. I am sorry they have allowed this convention, which stands for so much, which is made up of so much intelligence, to go by without knowing how much it stands for in our great country. But I do not know as I should complain of non-attendance of those who have no financial interest in the industry when there are bee-keepers in and near this city who have not shown their faces in this hall during these meetings. I am sure, however, that *they* have made a mistake by not attending. Why do they do this? It is simply because they are not alive to the importance of the industry; or at least that is the way it seems to me. Men often say to me, "What is your business?" If they ask me in a certain tone of voice, I tell them it is none of their business, or at least I feel like doing so, if I do not do it. It depends upon the tone of voice whether I deem it proper to give them a direct answer. When I tell some of them that I am a bee-keeper, and deal in bee-keepers' supplies, they say, "Bee-keepers' supplies! Do people buy enough of them so that a man can make a living out of that business? I thought bee-keeping a little business." The looks on such people's faces indicate that they do not know that there has been a thousand pounds of honey gathered in a year in the United States. "Can a man make a living out of this business?" I should say: There is a man in Ohio who employs a hundred people in this business. There is a firm in Missouri that reports having sold $13,000 worth of bee-goods in one year, and they are only two of a large number who are in the business. When I tell them these things, and show them that this industry stands for something, they say, "Well I did not know that; I never heard of it before." Of course they had not, or they would not have talkt in the way they did.

Here I think is a point for the bee-keepers, and I want to bring it out clearly. We should not hold these meetings entirely with a view of educating the bee-keepers, but we should have the general public in mind as well. Because it is just as important that the general public understand what this Association stands for, as it is that the people who have bees understand it. We depend upon the patronage of the public for our living; and, if we do not make them feel that we are of some importance, that we represent the best and purest food on God's green earth, we cannot expect to have them interested in our work, or to buy our goods.

I have met heads of families in this city who had never had a pound of honey in their homes until a few years ago. When I said to them, "Look here; do you know you are feeding your children glucose? Do you know that the sweets which they are eating will rot their teeth and injure their digestion? They said, "No; I did not know it." But when I gave them the scientific reasons for it, and made them understand how it is, they would say, "Look here; have you any good, pure honey?" When I said, "Yes," they said: "Well, bring me down some." Many such people have become regular customers. This is the way it is all over the country. If we will educate the people along these lines we will create a demand for our honey, and all of the bee-keepers in the business will have all they can do; because you will increase the consumption of the article which they produce, and that means business.

I have tried to advertise this meeting everywhere, and have tried to fill this community full of this business. I told them that we would have some big men here—that we would have Dr. Miller here with his songs and his fun, and that they could not afford to stay away.

I am told that the Associated Press telegrapht here, and said that they wanted to have a good report of the North American every day, and I trust that a report has been sent out through all the various papers in the country. If we keep the general public in mind all the time, it cannot fail to do good.

Just a word now about my official relations to this Association: It is a very difficult matter to preside over a body of men and women who come from various parts of the country with different temperaments, many of them not having any experience with parliamentary rules, and not understanding the courtesies of a parliamentary meeting. I say, it is a very difficult position to be placed in. It is very hard for the presiding officer to be fair at all times, and yet preserve order and common decency, and at the same time do business. All of these things have to be taken into consideration. I have tried to deal as I should wish to be dealt by. I have tried to treat all people alike. I have not been any more disposed to recognize Mr. Root than the most obscure bee-keeper in this country. I have been just as willing to "sit down" on Dr. Miller as on any one else. If I have made mistakes, they have been mistakes of the head rather than the heart. I have never had occasion to study parliamentary rules very much before, but I put a book on the subject in my pocket, and have studied it carefully for the last three months. I did this so that I might do things with decency and in order. If I have failed to do this it was because I had not brains enough to understand the business. There are limitations to all people's capacity. If a man is only four feet tall, and he can't reach six, he is not to be blamed for it. A great big, tall man ought not to be kicking Dr. Peiro because he is short and fat. It would not be proper.

But, to be serious, there are many things that I might say, but it seems useless. All I have said you have heard before. We don't talk so much to tell people what they don't know, as we do to tell them what they do know. This is the way I talk at Farmers' Institutes. I say, "It is not because you do not know, but because you have fallen into a stagnant condition, and you need somebody to throw stones into the water and splash it about." It gets the scum off from it and kills the wigglers. That is what you want to do with people's brains. They move in certain fixt channels, and the scum gets over them, and you want to throw in a little stone and make a splash now and then, and get them moving. That is what these conventions do.

I want to thank the members for the courtesy they have shown me, and for the disposition they have manifested to observe the rules, and for the kindness of spirit they have displayed while in this city. I want, also, to thank you for the co-operation you have given the chairman, and I trust that we may go home feeling that this meeting has been a profitable one. If anything has seemed to jar on our feelings, or grate on our nerves, just let the jar and rattle of the cars shake it out of us, and we will forget it when we get home, and be just as we were when we started from home, except that we have gotten increast determination to do the right thing, and make a success of any undertaking in which we may engage. It is a theory of mine that a man who breaks stone on a rock-pile the best he possibly can—makes the neatest piles, and the most uniform work—so that the rock is better fitted for the purpose for which it is designed, is doing all he possibly can to make the most out of his opportunities. I believe every man should do that. I do not care where he is, on the rock-pile, in a bank, or the Governor of the State; I don't care what position he occupies in life, if he does the best he knows how, and makes all he possibly can out of his opportunities, that man deserves great credit.

Let us go home, then, determined that we will make the best of all our privileges, and tho disappointments may come, let us rise above them, and in the end victory will be ours.

EMERSON T. ABBOTT.

[Continued next week.]

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Transferring from a Box-Hive.

I have an old box-hive containing a very strong colony of bees; the top of the hive will come off easily, but the bottom is nailed tight. When I transfer them, can I drum them out from the top, or will I have to invert the hive and pry off the bottom to drum them out that way? H. W. L.

ANSWER.—They will come up at the top just as well, and probably a little better.

A Well Droned Colony—Strange Queen for a Swarm.

I have 21 colonies, commencing two years ago with 8.

1. I have one colony that had drones all winter. When the bees had a flight the drones from this hive would fly, too. Not long ago I opened the hive to look for the queen, for I thought they were queenless. But to my surprise they had a very nice, plump queen, worker-brood in all stages, and drones—fully as many as they have in swarming time, and

about one-third drone-comb. What is best to do with this colony? I would like to keep the queen.

2. Will a new swarm accept a strange queen?

F. P. P.

ANSWERS.—1. The case seems unusual. So much as a third of the comb being drone-comb would account for a large number of drones being reared, but it is unusual that they were allowed to live through the winter. Better get rid of so much drone-comb in the hive. Give them in its place frames filled with worker foundation, or if you have no foundation try to get them to build worker-comb. Take away some of their combs that have least drone-comb, giving it temporarily to another colony to care for, and give them frames with starters of worker-comb. As you have left them the combs with the most drone-comb, they will likely build worker. Then take away the drone-combs and return the combs previously removed.

2. I don't know. Perhaps in the confusion of swarming they might accept a strange queen, providing their own was previously removed, but it might not be best to risk a valuable queen in that way.

Bees Changed in Color—Swarming.

1. What may be the reason that my bees are black this spring when they were yellow last fall?

2. When they swarm, which queen goes, the old one or the young one?

3. Which are the most proper indications that bees are going to swarm?

Centralia, Iowa.

ANSWERS.—1. The queen has been changed. A change of queens occurs at swarming, and often the old queen is superseded by a young one at the close of the harvest. Of course a queen may be superseded at other times, but perhaps the majority of supersessions occur in the fall. If the young queen meets a black drone, then the workers will be much darker. In very rare cases there may be such a thing as a young queen from another colony getting into the hive, making a greater change than would be possible in case of a daughter taking the place of her mother.

2. In a first swarm the old queen goes with the swarm, leaving no queen in the hive, but several young queens in cells, the first one of which emerges about a week later, going off with a swarm, unless the colony decide not to swarm any more.

3. You can't tell. You can make a very good guess at it if you keep watch of queen-cells and note when the first one is sealed. If everything is favorable you may then look for a swarm within 24 hours. If you find eggs in queen-cells, the bees are likely to swarm within a week or 10 days. But sometimes bees swarm before the queen-cells are sealed, and some even report swarms before queen-cells are started. A second, or after-swarm, may be expected 8 or 10 days after the prime swarm, providing there is any after-swarm, and if no after-swarm issues within 16 days of the time when the prime swarm issued, you need look for no after-swarm.

Italianizing Bees—Getting Pure Queens.

1. I have 6 colonies of the common black bees in dovetailed hives, and want to Italianize them, but as I have never had any experience, will you tell me all about the most successful plan to do this? Would it be better to buy some Italian queens that are fertile, with 3-frame nuclei, and build them up with brood-frames from my old colonies, and not disturb the black queens?

2. Do you consider the Italian bees superior to the blacks?

3. Can you refer me to some reliable bee-man from whom I can purchase Italian queens, and feel assured that I will get pure Italians that have been impregnated by a pure Italian drone?

C. C. C.

ANSWERS.—1. It depends somewhat upon circumstances what is your best course. If you are anxious to increase, or if you do not care for expense, it would be an excellent plan to get 3-frame nuclei and build them up. If you have to send very far for them, expressage will be quite expensive, whereas a queen will be sent by mail a thousand miles just as cheaply as ten. You can get untested queens for the least money, with the likelihood of having most of them pure, and purely mated. By paying perhaps 50 cents more, you can have all tested queens. Perhaps a good plan would be to get one tested and the rest untested. Then you would be sure of having one true to breed from, and for practical work you will probably find hybrids just as good as pure. But you should have pure blood to breed from, for with black blood all around you, you will find it very difficult to keep Italian blood in the majority. Your text-book will give you full instructions as to introducing, and generally instructions are sent out with each queen.

2. Decidedly. And that's the general opinion of bee-keepers in this country, altho across the sea there are many who prefer blacks. Some think that the blacks in this country are not as good as those in Europe.

3. Probably any one whom you may find in the advertising pages of this Journal would send you just such a queen as you describe, if you order from him a "tested queen."

The Harding Non-Swarming Device.

Is the Harding non-swarming device an improvement on the Langdon? and has the latter proved a success? I've seen nothing said about it lately.

INDIANA.

ANSWER.—Seldom has any implement come before the bee-keeping fraternity in which were centered such high hopes as in the Langdon non-swarmer. But nothing is said about it lately, and those who tried it did not find it to succeed as anticipated. The Harding is of the same principle, and it is not likely it will succeed any better.

A Half-Dozen Questions.

1. What is an Adel-Carniolan?

2. What is an Albino?

3. How are Italians crost, so as to increase the bands from 3 to 4 or 5? Is it an outcross, or are they still pure Italians?

4. I would be pleased to know what is thought of the Adels and the Albino bees. If I understand it rightly, Adels are *pure* Carniolans, but yellow, while Albinos are Italians crost with Carniolans.

5. How much per colony should be stored per day on buckwheat less than ¼ mile away?

6. Is Washington, Oregon, and Idaho favorable bee-countries? If so, of what does the pasturage consist?

BANDS.

ANSWERS.—1. Different strains of bees may have different names, either from the name of the man that breeds them, the place where they are bred, or a name supposed to be descriptive in some way. The word "Adel" is applied to one strain of Carniolans which probably differ nothing in appearance from other Carniolans, but may differ as to special qualities.

2. An albino is an animal or a man or bee which lacks the coloring matter in some or all parts of its integuments, and so approaches white in color.

3. Those who have bred for bands could tell how they proceeded, but it might not be far out of the way to guess that constant selection was made of those having brightest or most bands, and if Italians only were used, of course the product would still be Italians, and if different races were crost they would have the not strictly correct title of hybrids.

4. Of late, few expressions of opinion have been given, but possibly this may call forth expressions from those who have had experience. The opinion prevails that albinos of any kind, being deficient in coloring matter, are likely to be deficient in vigor.

5. A rough guess might set 5 to 10 pounds as a good day's work for a strong colony. But that's only a guess, and the field is entirely clear for any one to answer who has any definite knowledge about it.

6. Some reports have been very favorable. Will some one from that region in question answer as to the pasturage?

The Names and Addresses of all your bee-friends, who are not now taking the Bee Journal, are wanted at this office. Send them in, please, when sample copies will be mailed to them. Then you can secure their subscriptions, and earn some of the premiums we have offered. The next few months will be just the time to easily get new subscribers. Try it earnestly, at least.

Beeswax Wanted.—If you want to get *cash* for your beeswax *promptly*, ship it to the publishers of the Bee Journal. We are now paying 25 cents per pound for good yellow beeswax delivered at our office. Address, GEORGE W. YORK & Co., 118 Michigan St., Chicago, Ill.

The American Bee Journal
OLDEST BEE-PAPER IN AMERICA

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Editorial Comments.

The Supply Dealers will have our sympathy during the next six or eight weeks. They will be abused for many delays in shipping goods that they can't help. A great number of bee-keepers wait until the very last minute before ordering, and then of course they want their goods shipt almost by telegraph. And if they don't come on time, the poor supply dealer will catch it.

Why can't more bee-keepers learn that they run a big chance of having their orders delayed when left so late? No supply dealer, if he is at all busy during May and June, can fill all orders the same day they are received.

So, reader, if you are among the late-in-ordering ones, don't blame the overworkt dealer, if your goods are not shipt to you by return train, for he may be doing his very best to accommodate all, and in so doing pass many a restless night.

* * *

Special to Our Newer Subscribers.—It seems that about once a month it is necessary to say something for the benefit of new subscribers about asking questions which they expect to be answered in the Bee Journal.

Now, let it be clearly understood that every subscriber to this journal has a perfect right to ask questions about bees—in fact, we want them to feel free to do so. But, we also desire them to remember that it is quite impossible for us to keep answering the very simple questions every week, that would not be askt if the person owned and read a good bee-book. For instance, just recently several askt whether it was the old or a new queen that leaves with the swarm. Also, as to the length of a queen's life. Now, all such questions and similarly simple ones, are fully answered in any one of the standard bee-books, and no one should begin to keep bees without first having read about the rudiments of the business, and also subscribing for a good bee-paper.

Again, such questions as these are often sent in: Please give me the best method of managing nuclei, giving instructions how to proceed from the time the nucleus is received until it is built up to a strong colony. Also, give me the best plan for rearing pure Italian queens, and the best plan for introducing them into colonies of black bees. What time of the year should it be done? etc.

If ever we get real "tired," it is when we receive such questions as the above. It reminds us of the question that a farmer askt Dr. Miller, at the meeting of the Farmers' Institutes at Springfield, Ill., last February, viz.: "Doctor, please explain your system of bee-keeping?" Now, of course, that was easy enough—if the Doctor were given two or three weeks' time to do it in. You might as well ask a farmer to tell in ten minutes all about his system of farming and growing all kinds of crops!

Then take that question about the best plan of rearing queens. It required a whole book of over 150 pages for G. M. Doolittle to tell how he rears queens. And yet a beginner in bee-keeping thinks of course we ought to print such a book and several others each week, and send it all for less than two cents—the price of a single copy of the Bee Journal! Why, we could better afford to *give* every new subscriber two or three of the best books, and end it there—and also go out of business in a short time—all for the fun of helping out new bee-keepers who won't spend a few cents for a book that will tell them all about the first principles of bee-keeping, as well as a few of the plans for doing some of the more particular work, such as queen-rearing, Italianizing, etc.

Some one may ask: "Well, what are you publishing the Bee Journal for, if not to tell us all about bee-keeping?" We answer that, take it the year through, we probably do touch upon nearly every phase of bee-culture, besides giving the latest improvements, and many short cuts in making bee-work a success, but we are not here to repeat week after week *all* that has appeared in the Bee Journal in detail during the past 36 years of its existence, much of which has been put in handy and permanent form in the books devoted to bee-keeping.

We have not written the foregoing in order to lead up to a book offer, but in sheer self-defense, and in order that our new readers may relieve themselves of the trouble of asking simple questions about bees, we will say that to any one whose subscription is paid to Jan. 1, 1898, or beyond, we will mail them a copy of Prof. Cook's "Bee-Keepers' Guide" for only 75 cents. This is a cloth-bound book of over 450 pages, that retails for $1.25, but until July 1st we will send it for just 75 cents to those paid-in-advance subscribers we have mentioned. Be sure to get this book, and then *study it thoroughly*, in connection with the Bee Journal, and thus inform yourself on the bee-question.

* * *

The Laying of a Queen.—A colony of bees was watcht from January to December, 1891. On Jan. 1 there appeared to be about 10,000 bees in the hive, at the end of the season about 20,000. For the whole time there were about 890 eggs laid per day, or for the season of the honey-flow (March 3 to Aug. 3) the number of eggs per day averaged 1,760. The highest daily average was (March 18 to April 10) 2,600. The colony did not swarm, and over 300,000 bees were hatcht and past away. The colony produced 180 pounds of honey.—*Gard. Chron., 21, No. 5252, p. 41.*

* * *

Queen-Bees Stay in the Mails.—On page 280 we referred to a report that had gotten out that queen-bees would possibly be excluded from the mails in this country; and that the matter had been taken up by the New Union, which exists for the express purpose of looking after the interests of bee-keepers. General Manager Secor immediately sent the following to headquarters:

FOREST CITY, Iowa, May 10, 1897.
To THE POSTMASTER GENERAL, Washington, D. C.

Dear Sir:—It has been reported that the postal authorities contemplate issuing an order excluding queen-bees from the mails. I shall be glad to know whether or not there is any foundation for this rumor, and, if so, the reason for so doing. If not true, it will not be necessary for me to enter into any argument to prove that the liberal rules heretofore, and now (I hope) in force, have been of incalculable benefit, not only to a very large number of bee-keepers, but also indirectly to agriculture and horticulture, and that a revocation of them would work a real injury to the producers of honey and the other industries named.

If any demand is made by any class of people, or by postmasters, for their exclusion from the mails, I would like to be permitted to present the matter from the standpoint of the bee-keeper, and to show the Department our view of the matter.

I am sure that we can convince you that no one can be injured, and that no mail matter can be injured by transmission through the mails of queens under your former instructions and rulings.

But as this letter is merely to inquire as to the truth of a rumor, which I sincerely trust is groundless, I will not argue the case in advance.
Yours truly,
EUGENE SECOR,
General Manager U. S. B.-K. U.

Attacht to the above, Mr. Secor promptly received this very satisfactory reply:

POSTOFFICE DEPARTMENT—
Office of the General Supt. Railway Mail Service.
WASHINGTON, D. C., May 14, 1897.

Respectfully returned to Mr. Eugene Secor, Forest City, Iowa.

There must be some mistake about this matter, as no one at the Department has any knowledge of a change of the regulations excluding queen-bees being contemplated.
JAMES E. WHITE,
General Supt.

We are glad that it was only a "mistake," for it would be a great calamity to bee-beepers and others, as Mr. Secor says, should the present ruling concerning queen-bees be revoked. We believe our Postoffice Department (which is perfection itself) would not do anything to unjustly interfere with the success of any honorable business.

◆

Square vs. Oblong Sections.—On the first page of this number we show an illustrated comparison between the usual square section and the oblong, or what is sometimes called the "tall," section.

Some leading bee-keepers are using the oblong section, and prefer it for several reasons. Mr. Doolittle, we believe, uses it. The Danzenbaker hive takes the oblong section, 32 of them in a single-tier super. We expect to give this "tall" section and the Danzenbaker super a trial this year, so as to know for ourselves whether or not we prefer them. We will also use some of the much-talkt-of drawn foundation in these sections, and see how nearly the total destruction of the pursuit of bee-keeping is threatened by its use, as some of the would-be apiarian prophets have foretold!

We are indebted to the kindness of Gleanings in Bee-Culture for the use of the beautiful engravings on the first page this week.

Here is what Mr. Doolittle said awhile ago in Gleanings, concerning his preference in the way of a section, and his reasons therefor:

"My own preference is a section 3½x5⅜x1⅝ inches, this holding a pound as nearly as may be when well filled. This size is used in single-tier wide frames with separators, so as to secure each comb built perfectly in the box. My reasons for preferring them are, that more in number can be set over a given space than can those of less depth; besides, such a cake of honey is of symmetrical proportions, and pleasing to the eye, it being just sufficient to set on the table for an ordinary family, and, covering more surface, apparently, to look at, does not give a scrimpt appearance or pattern. Why I prefer them to the larger size is, they bring from two to three cents per pound more in market."

◆

Beginners in Bee-Keeping make their annual appearance as regularly as the spring-time. And they are a hopeful lot of people. We have met several of them this spring, as usual. We rather like them. We started with bees once upon a time, ourselves. So did Dr. Miller. And Doolittle. And Dr. Miller says it's just as much fun now to watch the bees get to work each spring as it was nearly 40 years ago. We believe him, even if we are not much more than half as old as he is. (It probably is more fun for the bees to watch the Doctor get to work each spring!)

But we started out to say a few words about the enthusiastic beginner. We want to advise him not to invent a new hive the first season. Wait at least two or three years, until you get a little acquainted with the habits of bees. Perhaps by that time you'll discover that bees will do pretty well in almost any of the hives already in use.

Another thing, don't try to go too fast into bee-keeping. Better grow into it. For instance, start with say two colonies; to begin the second year you might have four, and thus let your apiary grow with your experience. You'll stand a better chance of making a success of it in that way.

Above all things, read very carefully that bee-book. Don't borrow one and then forget to return it, but own one yourself. The book will help you to understand your bees, and *vice versa.*

The Weekly Budget.

MR. J. T. HAIRSTON, of Indian Territory, writing May 18, said:

"I suppose I could get along in a way without the 'Old Reliable,' but I don't see how I could. My bees have had the swarming fever this spring—35 swarms from 9 colonies. But they have stopt, and are getting down to business."

EDITOR MERRILL, of the American Bee-Keeper, when announcing the selection of Hon. Eugene Secor as General Manager of the United States Bee-Keepers' Union, said: "Every bee-keeper in this country should join the Union." That's good advice, surely. We hope that several thousand of Editor Merrill's subscribers will send their membership fees to him to be forwarded to the New Union.

MR. F. BUSSLER, a progressive bee-keeper in Old Mexico, writing us May 11, said:

"I have now some bees, comb and extracted honey in the exhibition in Cojoacan, and it looks as if people here had never seen such things. Mexico is a wonderful land for honey, and could export tons and tons of the nicest kind. Later on I will report more about the exhibition. Long may the banner of the American Bee Journal wave!"

MR. J. S. SCOTT, of Utah Co., Utah, had this to say when writing us May 15:

"I have only one objection to the American Bee Journal, and that is, in allowing Doolittle to be so cruel to his little old man, by making him stand so long in one position, with that woe-begone, tired look. Say, Doolittle, can't you turn his face to the wall for awhile? I am sure he would present a better appearance.

"The bees in Utah county have wintered better than ever before. They are having a good run on fruit-bloom, and are coming to the front in fine style."

THE A. I. ROOT COMPANY report, in Gleanings for May 15, that their bee-supply business is booming. They have this to say about it:

"We never had quite such a run of orders as we are having this spring. If we were no better organized for taking care of so much business promptly than we were in 1890, we should be hopelessly behind. As it is, we are working a man in every available place; and in the wood-working department two turns of workmen keep the machinery going 22 hours out of the 24. In the shipping department there are several who are working 14 or 15 hours almost every day to get orders off promptly. By these extra efforts we are able to keep the goods going out as fast as the orders come in, so that orders do not remain in our hands unfilled very long."

We shall be glad to announce in this column the present condition of business of any of our other regular advertisers if they will let us know about it. We hope that all are having a satisfactory trade this year.

☞ This is a good time work for new subscribers.

BEE-BOOKS

SENT POSTPAID BY

George W. York & Co.,

Chicago, Ills.

Bees and Honey, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages, and 245 illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold-lettered. Price, $1.00.

Langstroth on the Honey-Bee, revised by Dadant—This classic in bee-culture, has been entirely re-written, and is fully illustrated. It treats of everything relating to bees and bee-keeping. No apiarian library is complete without this standard work by Rev. L. L. Langstroth—the Father of American Bee-Culture. It has 520 pages; bound in cloth.

Price, postpaid, $1.25.

Bee-Keepers' Guide, or Manual of the Apiary, by Prof A. J Cook, of the Michigan Agricultural College.—This book is not only instructive and helpful as a guide in bee-keeping, but is interesting and thoroughly practical and scientific. It contains a full delineation of the anatomy and physiology of bees. 460 pages; bound in cloth and fully illustrated.

Price, postpaid, $1.25.

Scientific Queen-Rearing, as Practically Applied, by G. M. Doolittle.—A method by which the very best of Queen-Bees are reared in perfect accord with Nature's way. 176 pages, bound in cloth, and illustrated. Price, $1.00.

A B, C of Bee-Culture, by A. I. Root.—A cyclopædia of 400 pages, describing everything pertaining to the care of the honey-bees. It contains 300 engravings. It was written especially for beginners Bound in cloth. Price, $1.25.

Advanced Bee-Culture, Its Methods and Management, by W. Z. Hutchinson.—The author of this work is too well known to need further description of his book. He is a practical and entertaining writer. You should read his book. 90 pages, bound in paper, and illustrated. Price, 50 cts.

Rational Bee-Keeping, by Dr. John Dzierzon—This is a translation of his latest German book on bee-culture. It has 350 pages; bound in paper covers, $1.00

Bienen-Kultur, by Thomas G. Newman.—This is a German translation of the principal portion of the book called BEES OF HONEY. 10, page pamphlet. Price, 40 cents.

Convention Hand-Book, for Bee-Keepers. Thomas G. Newman.—It contains the parliamentary law and rules of order for Bee-Conventions—also Constitution and By-Laws, with subjects for discussion, etc. Cloth, gold-lettered. Price, 25 cts.

Thirty Years Among the Bees, by Henry Alley.—Gives the results of over a quarter-century's experience in rearing queen-bees. Very latest work of the kind. Nearly 100 pages. Price, 50c.

Why Eat Honey?—This Leaflet is intended for FREE distribution, to create a Local Market. 100 copies, by mail, 30 cts.: 500 for $1.25; 1000, $2.00.

How to Keep Honey and preserve its richness and flavor. Price same as Why Eat Honey.

Alsike Clover Leaflet.—Full directions for growing. 50 for 25 cts.; 100 for 40 cts.; 200, 70c.

Apiary Register, by Thos. G. Newman.—Devotes two pages to a colony. Leather binding. Price, for 50 colonies, $1.00; for 100 colonies, $1.25.

Preparation of Honey for the Market, including the production and care of comb and extracted honey. A chapter from BEES AND HONEY. Price, 10 cents

Bee-Pasturage a Necessity.—This book suggests what and how to plant It is a chapter from BEES AND HONEY. Price, 10 cents.

The Hive I Use, by G. M. Doolittle. It details his management of bees, and methods of producing comb honey. Price, 5 cents.

Dr. Howard's Book on Foul Brood.—Gives the McEvoy Treatment and reviews the experiments of others. Price, 25 cts.

Dictionary of Apiculture, by Prof. John Phin. Gives the correct meaning of nearly 500 apicultural terms. Price, 50 cts.

Winter Problem in Bee-Keeping, by G. R. Pierce. Result of 25 years' experience. 50 cts.

Handling Bees, by Chas. Dadant & Son.—A Chapter from Langstroth Revised. Price, 8 cts.

History of Bee-Associations, and Brief Reports of the first 20 conventions. Price, 15 cts.

Foul Brood Treatment, by Prof. F. R. Cheshire.—Its Cause and Prevention. Price, 10 cts.

Foul Brood, by A. R. Kohnke.—Origin, Development and Cure. Price, 25 cts.

Honey as Food and Medicine, by T. G. Newman.—A 32-page pamphlet: just the thing to create a demand for honey at home. Should be scattered freely. Contains recipes for Honey-Cakes, Cookies, Puddings, Foam, Wines, and uses of honey for medicine.

Prices, prepaid—Single copy, 5 cts.; 10 copies, 35 cts.; 50 for $1.50; 100 for $2.50; 250 for $5.50; 500 for $10.00; or 1000 for $15.00.

When 250 or more are ordered, we will print the bee-keeper's card (free of cost) on the front cover page.

Practical Hints to Bee-Kee-Keepers—by CHAS. F. MUTH. Also contains a Foul Brood Cure and How to Winter Bees. 40 p.; 10 cts.

Bee-Keeping for Profit, by Dr. G. L. Tinker.—Revised and enlarged. It details the author's "new system, or how to get the largest yields of comb or extracted honey." 80 p.; illustrated. 25c.

Emerson Binders, made especially for the BEE JOURNAL, are convenient for preserving each number as fast as received. Not mailable to Canada. Price, 75 cts.

Commercial Calculator, by C. Ropp.—A ready Calculator, Business Arithmetic and Account-Book combined in one. Every farmer and business man should have it. No. 1, bound in water proof leatherette, calf finish. Price, 40 cts. No. 2 in fine artificial leather, with pocket, silicate slate, and account-book. Price, 60 cts.

Green's Four Books, by Chas. A. Green.—Devoted to, 1st, How We Made the Old Farm Pay; 2nd, Peach Culture; 3rd, How to Propagate Fruit-Plants, Vines and Trees; 4th, General Fruit Instructor. Nearly 120 pages. Fully illustrated. 25 cts.

Garden and Orchard, by Chas. A. Green.—Gives full instructions in Thinning and Marketing Fruits; Pruning, Planting and Cultivating; Spraying, Evaporation, Cold Storage, Etc. 94 pages, illustrated. Price, 25 cts.

Kendall's Horse-Book.—35 pictures, showing positions of sick horses, and treats on all their diseases. English or German. Price, 25 cts.

Silo and Silage, by Prof. A. J. Cook.—It gives the method in operation at the Michigan Agricultural College. Price, 25 cts.

Lumber and Log-Book.—Gives measurements of lumber, logs planks; wages, etc. 25c.

Maple Sugar and the Sugar Bush, by Prof. A. J. Cook.—Full instructions. Price, 35 cts.

Grain Tables, for casting up the price of grain, produce, hay, etc. Price, 25 cts.

Capons and Caponizing, by Dr. Sawyer, Fanny Field, and others.—Illustrated. All about caponizing fowls, and thus how to make the most money in poultry-raising. 64 pages. Price, 30 cts.

Our Poultry Doctor, or Health in the Poultry Yard and How to Cure Sick Fowls, by Fanny Field.—Everything about Poultry Diseases and their Cure. 64 pages. Price, 30 cts.

Poultry for Market and Poultry for Profit, by Fanny Field.—Tells everything about the Poultry Business. 64 pages. Price, 25 cts.

Turkeys for Market and Turkeys for Profit, by Fanny Field.—All about Turkey-Raising. 64 pages. Price, 25 cts.

Rural Life.—Bees, Poultry, Fruits, Vegetables, and Household Matters. 100 pages. 25 cts.

Potato Culture, by T. B. Terry.—It tells how to grow them profitably. Price, 40 cts.

Hand-Book of Health, by Dr. Foote.—Hints about eating, drinking, etc. Price, 25 cts.

Bee-Keepers' Directory, by H. Alley.—Latest methods in Queen-Rearing, etc. Price, 50c.

Book Clubbing Offers.

(Read Carefully.)

The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only ONE book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted, see postpaid prices given with the description of the books on this page. Following is the clubbing-list:

1.	Langstroth on the Honey-Bee	$2.00
2.	A B C of Bee-Culture	2.00
3.	Bee-Keeper's Guide	1.75
4.	Bees and Honey [Cloth bound]	1.65
5.	Doolittle's Scientific Queen-Rearing	1.75
6.	Dr. Howard's Foul Brood Book	1.10
7.	Advanced Bee-Culture	1.30
9.	Bienen-Kultur [German]	1.20
11.	Rational Bee-Keeping [Paper bound]	1.75
12.	Thirty Years Among the Bees	1.30
13.	Bee-Keeping for Profit	1.15
14.	Convention Hand-Book	1.15
15.	Poultry for Market and Profit	1.10
16.	Turkeys for Market and Profit	1.10
17.	Capons and Caponizing	1.10
18.	Our Poultry Doctor	1.10
19.	Green's Four Books	1.15
21.	Garden and Orchard	1.15
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Honey - Clovers!

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
Alsike Clover	.70	$1.25	$3.00	$5.75
Sweet Clover (white)	.60	1.00	2.25	4.00
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Crimson Clover	.55	.90	2.00	3.50

Prices subject to market changes.

Add 25 cents to your order, for cartage, if wanted by freight.

Your orders are solicited.

GEORGE W. YORK & Co.
CHICAGO, ILL.

TRANSFERRING MADE EASY

If you contemplate buying either three or five band Italian Queens, simply write for my pamphlet. If you need some of the best now, send 75 cts. for one, $4.00 for six, or $7.50 per doz.—and full instructions for introducing, as well as the best methods known for securing good cells will be sent free.

Money Order office—Warrenton.

W. H. PRIDGEN,
21A13t CREEK, Warren Co., N. C.
Mention the American Bee Journal

MILLER'S FACE BLEACH

Removes Tan, Pimples, Freckles, Rash, and Skin Diseases. Every blemish on beauty is effectually removed. It defies detection. It is not affected by perspiration, and contains nothing that would injure the most sensitive skin. By mail, 25c. **H. L. PANGBORN,**
21A1 MAQUOKETA, IOWA.
Mention the American Bee Journal.

For 1897—Italian Bees per Colony, $4

Tested Italian Queens, 60 cts. each. Address,

OTTO KLEINOW,
122 Miltary Ave., - DETROIT, MICH.
Mention the American Bee Journal.

Wanted to Exchange—Repeating 9-shot Winchester Rifle, 38 calibre, for Tested Italian Queens from imported mother, or faultless breeding queens, or anything useful in an apiary.

F. J. GUNZEL, Claytonville, Ill.

ADEL AND ITALIAN QUEENS.

Now ready to mail. Purity and safe arrival guaranteed. One Queen, $1; 2 Queens, $1.90; 3 Queens, $2.75; 6 Queens, $5.50.

HENRY ALLEY, Wenham, Mass.
21Dtf *Mention the American Bee Journal.*

EVAN'S Improved Machine for Sheeting Wax.

This machine produces a continuous sheet of uniform thickness and any width desired directly from the melted wax. No lapping or welding done in this proces. This machine is a rapid worker, simple in construction, easily operated either by hand or steam power, and price within reach of any supply dealer. Correspondence solicited. Sample sent on receipt of order and postage. Patent allowed March 18, 1897. THOS. EVANS, Lansing, Iowa.

Mention the American Bee Journal.

Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Sections with Old Foundation.

Query 50.—I have sections that were filled with foundation two years ago. Would you put them on the hives this season, or what would you do with them?—MINN.

E. France—Use them if they are clean.

Mrs. L. Harrison—Put them on the hives.

W. G. Larrabee—I would put them on the hive.

R. L. Taylor—I should use them on the hives.

Wm. McEvoy—Put them on the hives this season.

Chas. Dadant & Son—Yes, use all that are not soiled.

A. F. Brown—If clean, use them; otherwise not.

P. H. Elwood—If well preserved, I would use them.

Eugene Secor—Yes, if I did not have a mill of my own.

Dr. C. C. Miller—If they have been nicely kept, I'd use them.

J. M. Hambaugh—If they have not been damaged, I would use them.

G. M. Doolittle—Put them on the hive. What else *should* you do with them?

Jas. A. Stone—If they have been kept free from dust, I think they will do to use.

Rev. M. Mahin—I would expose them to a degree of heat that will almost melt them, and put them on the hives.

Prof. A. J. Cook—I have not found bees to work well on such old sections. I think you would probably use them at a loss.

Dr. A. B. Mason—I would use them after they had been kept for awhile in a temperature a little below the melting point of the wax.

G. W. Demaree—I would use them if the wax is white and clean. I use a tin plate heated by a lamp to reduce the depth of the cells.

H. D. Cutting—It would all depend on their condition. I have used them two years old with good results. Place in the sun for a short time before putting on the hive.

Dr. J. P. H. Brown—If the sections are clean, and the foundation is not wax-moth eaten, I would use them. But before using, I would allow the sun to warm them up.

C. H. Dibbern—If the sections are clean and the foundation is not glazed over with propolis, I would use them; otherwise, cut out the foundation and burn up the sections.

Emerson T. Abbott—I give it up. The best way to do is to put the fresh foundation in the sections when you need them. That is, if you want to secure honey that is first-class in every respect.

J. E. Pond—If they are clean and nice, use them again; if not, work the wax up, and use the sections for fire-wood. It don't pay to fool with anything in the comb honey line that is not delicate and dainty.

J. A. Green—I would not use them. I think it would pay better to start with fresh. If you *do* use them, put in each super half fresh and half old. Then you will know for yourself, and we would like to have you report.

Finest Alfalfa Honey!

IT SELLS ON TASTING.

The Honey that Suits All Who Buy It.

Low Prices Now!

We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 7½ cents per pound; 2 cans in one case, 7 cents; 4 cans (2 cases) or more, 6½ cents. The Cash MUST accompany each order. **Fine Basswood** Flavor Honey at same price; also in 270-lb. barrels.

☞ A sample of either honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

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Page & Lyon Mfg. Co. New London, Wisconsin,

Operates two sawmills that cut, annually, eight million feet of lumber, thus securing the best lumber at the lowest price for the manufacture of

Bee-Keepers' Supplies.

They have also one **One of the Largest Factories** and the latest and most-improved machinery for the manufacture of

Bee-Hives, Sections, Etc.,

that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polish on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equipt with best machinery, all combine to enable this firm to furnish the

Best Goods at the Lowest Prices.

Send for Circular and see the Prices on a Full Line of Supplies.

Please mention the American Bee Journal. 7Atf

BEE-KEEPERS We make

The Very Finest Line of **SUPPLIES** in the Market, and sell them at Low Prices.

Send for Free Illustrated Catalog and Price-List.

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Special Agent for the Southwest—E. T. ABBOTT, St. Joseph, Mo.

Mr. Abbott sells our Hives and Sections at Factory Prices.

That Queen-Clipping Device Free!

Works Like a Charm.

The Monette Queen-Clipping Device WORKS LIKE A CHARM. With it I have clipped 30 queens, all in one day, when examining my bees. WM. STOLLEY, Grand Island, Nebr.

Couldn't Do Without It.

I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now. DR. GEO. LACKE, Newburgh, Ind.

PLEASE READ THIS OFFER TO PRESENT SUBSCRIBERS:

Send us *just one new name* for the American Bee Journal a year (with $1.00), and we will mail you the Queen-Clipping Device FREE of charge. Or, the Queen-Clipping Device will be sent postpaid for 30 cts. But why not get it as a Premium by the above offer? You can't earn 30 cts. any easier. Almost every bee-keeper will want this Device.

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NEVER—

TOO LATE

To Start Right.

We have decided [to induce our patrons to get a start in the **best Italian Bees**, or to change their stock], to sell not over 2 Nuclei to any one address.

A 3-Frame (Hoffman) **Nucleus and Warranted Italian Queen, for $2.75.**

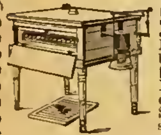
Just running over with Bees.

Phil. Office A. I. ROOT CO.,
10 Vine St.,
PHIADELPHIA, PA.
Wm. A. Selser, Mgr.

—A Full Line of—

All Bee-Supplies at Factory Prices.

19Atf *Mention the American Bee Journal.*



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Made on the best lines, of the best material known to the art. **HEATS WITH HOT WATER** Entirely automatic; will hatch every egg that can be hatched. Simple, durable, effective. Send 2 stamps for Illustrated catalog No. 59.

THE INVINCIBLE HATCHER CO.,
SPRINGFIELD, OHIO.

13D5t Please mention the Bee Journal.

JUST ARRIVED!

My second carload of Goods from **The A. I. Root Co.** has arrived, and I am in shape to fill all orders promptly at their catalog prices. Send for my 36 page catalog; also list of Goods you will need, and I will make you special prices on early orders.

GEO. E. HILTON,
9D9t **FREMONT, MICH.**

Mention the American Bee Journal.

"Queens Given Away."

Gray Carniolans and Golden Italians.

We will give a fine Tested Queen (either race) to all customers ordering 6 Untested Queens, and a fine Select Tested Queen to all who order 12 Untested Queens at one time. The Queens given away will be sent to customers in August.

Grade and Prices of Bees and Queens	April May June	July Aug. Sept.
Untested Queen	$ .75	$ .65
Tested "	1.50	1.25
Select Tested Queen	2.50	2.25
Best Imported "	5 00	4.00
One L Frame Nucleus (no Queen)	.75	.50
Two " " "	1.50	1.00
Full Colony of Bees " (in new dovetailed hive)	5.00	4.00

We **guarantee** our Bees to be free from all diseases, and to give entire satisfaction.

Descriptive Price-List Free.

F. A. Lockhart & Co., LAKE GEORGE, N. Y.

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—OF—

Apiarian Supplies, Bees, Etc.

is yours for the asking.
It is full of information. ☞ Write for it.

I. J. STRINGHAM,
105 Park Place. NEW YORK, N. Y.
APIARY—Glen Cove, L. I.

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FREE A booklet, handsomely illustrated, describing **Nebraska**, her farms and the opportunities there for young men and farm renters to become farm owners Mailed without charge on application to P. S. EUSTIS, General Passenger Agent, C., B. & Q. R. R., Chicago. Ill. 14A8t

Mention the American Bee Journal.

General Items.

Prospects Good.

I have 8 colonies of Italian bees. They wintered all right, and the prospects are good here for a good crop of honey.

DAMON CHESLEY.
Carroll Co., N. H., May 18.

◆

Good Weather for Honey-Flow.

I took 120 pounds of honey from 3 hives May 18, and sold it here yesterday quite readily. The weather is good for the honey-flow.

JOHN M. RYAN.
Marshall Co., Ala., May 20.

◆

Working on Sweet Clover.

Bees are doing well—just beginning to work on yellow sweet clover and white clover. White sweet clover will be in bloom in about two weeks.

J. L. GANDY.
Richardson Co., Nebr., May 19.

◆

New Honey Taken Off.

Bees are working in good shape. I put a swarm into a dovetailed hive April 16; ten days after I put on supers, and on May 12 I took off 24 pounds of as nicely capt honey as one could wish to see.

C. A. WALES.
Tipton Co., Tenn., May 13.

◆

Early Swarming.

It seems to me all my bees are ahead of my work. I have already hived a swarm May 6, and another prime swarm May 16, and I expect the rest of the colonies to swarm any day.

CHAS GRIESBACH.
Clay Co., Ind., May 21.

◆

Working in the Supers

Bees are doing finely. The pasture, roadsides and every nook and corner is growing white with the bloom of clover, and the bees are just humming. Some colonies are working in the supers—10 days early for this locality.

W. N. KING.
Greene Co., Mo., May 17.

◆

Experience in Transferring.

I am well pleased with the American Bee Journal; it is a source of much information to me. I started in bee-keeping in the spring of 1896 with one colony of bees, after reading and re-reading "A B C of Bee-Culture" and "Langstroth on the Honey-Bee, Revised by Dadant." I purchased 12 colonies in the fall of 1896, in chaff hives which I wintered out-doors, and only lost one colony. I preferred to transfer them to the Quinby closed-end frame, so I could have my hives all alike, and frames and supers. It came off very warm in March, and I went at them to transfer them. To commence with, I bored ⅛-inch holes in the new Quinby frames, about 4 inches apart, and got some thorns about 2½ to 3 inches long, and thorned in a set of combs, and went to the first hive to transfer. I moved the old hive off of the stand and set the new one in its place. I smoked the colony a little, and

GOOD HEALTH MAKES ONE HAPPY.

and the happy man is best fitted for the duties of life. The happy heart is the strongest heart. To **produce** and **maintain** this condition, you should keep constantly on hand a supply of that **health retaining, health restoring** remedy

Warner's Safe Cure

It is a **purely vegetable preparation** that corrects all derangements of the **Liver** and **Kidneys** and works a permanent cure for

BRIGHT'S DISEASE
URINARY TROUBLES
GENERAL DEBILITY
FEMALE COMPLAINTS
AND MALARIA.

In order that it may be handy for you we have placed it on sale in your nearest store Beware of substitutes. There is nothing so good as Warner's Safe Cure.

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Pacific Coast Bee-Keepers!

—*BUY YOUR*—

Dovetailed Cedar Hives

Direct from the Factory. Guaranteed equal to the best goods on the market.

Send for Price-List.

Rawson & Barner, Centralia, Wash.

10A13t Mention the Am. Bee Journal.

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The leading Horticultural and Agricultural paper of the Pacific Coast. Published weekly, handsomely illustrated 00 per annum. Sample Copy Free.

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Bee-Keepers' Photograph.—We have now on hand a limited number of excellent photographs of prominent bee-keepers—a number of pictures on one card. The likeness of 49 of them are shown on one of the photographs, and 121 on the other. We will send them, postpaid, for 30 cts. a card, mailing from the 121 kind first; then after they are all gone, we will send the 49 kind. So those who order first will get the most "faces" for their money. Send orders to the Bee Journal office.

◆

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SHOWS HOW THE FENCE IS MADE.

FOR A GOOD FENCE
that can't blow down nor burn up; that turns all kinds of stock without injury; that can't sag because it takes up its own slack by expanding and contracting as required; a fence which meets every requirement of a farm fence—buy the KEYSTONE. 25 to 58 inches high. Fully described in our free book on fence construction. Send for it.
Keystone Woven Wire Fence Co.,
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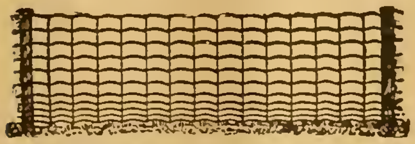
EGGS
From Pure B. P. Rocks. Black Minorcas. Light Brahmas—$1.25 per Sitting. Also, will stuff and mount Birds and Animals to order; price, for small birds and animals 60c. and upward.
Plants for sale cheap—Red and Black Raspberry, and Strawberry.
MRS. L. C. AXTELL,
ROSEVILLE, Warren Co., ILL.

Cash PAID FOR Beeswax
For all the Good, Pure Yellow Beeswax delivered to our office till further notice, we will pay 25 cents per pound, CASH; or 27 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want cash, promptly, for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,
GEO. W. YORK & CO.
118 Michigan st., CHICAGO, ILL.

BEES QUEENS
Smokers, Sections, Comb Foundation, And all Apiairan Supplies cheap. Send for FREE atalogue. E. T. FLANAGAN, Belleville, Ill.
13A13t Please mention the Bee Journal.

50 Colonies Bees for Sale Cheap.
2-frame Nucleus, with Queen, only $2.
B. P. Rocks, White Leghorns, B. Leghorns, Black Minorca. Buff Cochin, Part. Cochin. L. Brahma, S. S. Hamburg—Eggs from all these, 15 for $1.00.
Also, Berkshire Pigs for sale. Write for what you want. Stock all registered pedigree.
N. H. SMITH, Lock Box A,
18A4t TILBURY, ONT., CANADA.



Confidence Restored.
Not Page confidence, that was never lost. Sales increased every year through the late "unprosperousness." Now comes 35 per-cent increase for the month of April. This shows that people like the Coiled Spring and like to buy it of the owner, rather than those who attempt to appropriate it without leave or license.
PAGE WOVEN WIRE FENCE CO., Adrian, Mich

For Sale, Bees & Queens
Bees by the Pound, $1.00. Queens $1.00. Nuclei, 2 frame, with Queen, $2.50; 1-frame, $2.00. Also, Barred & White Plymouth Rocks, and Silver-Laced Wyandottes Eggs at $1.00 per sitting of 15. Address,
Mrs. A. A. SIMPSON,
16A13 SWARTS, GREENE CO., PA.
Mention the American Bee Journal.

went after the queen first, and got her into the new hive, and then shook the bees off the combs on a blanket in front of the new hive, and all was done. There was scarcely any brood to speak of, and what there was I covered up and took to a warm room to transfer. I was careful to cut out all of the drone-comb, or nearly so, and replace it with worker-comb.

I examined the transferred colonies May 15, and found them very strong in bees, and also in brood, and all at work. The prospects are good now for a good honey-yield here this season.

ALBERT G. PALMER.

Otsego Co., N. Y., May 17.

P. S.—The first colony that I started with to transfer, swarmed, and also got 100 pounds of surplus honey from it, and from the new swarm 50 pounds, besides 40 to 45 pounds each for winter stores.

A. G. P.

Old-Time Honey-Year Expected.

Bees in this part of east Tennessee and southwest Virginia (we are right on the dividing line of the two States) wintered well, and are now in splendid condition to gather the precious nectar, which seems to be ready to shower down upon us in profusion, as it were. White clover is blooming almost everywhere this spring, along the roadside, in the old fields, in fence corners, and, in fact, the whole earth presents a lovely flower-garden. It looks now as if we were going to have an "old-time" honey-year. Last year was good, and we will be thankful for another like it, but the present prospects indicate a much better year for 1897.

M. D. ANDES.

Sullivan Co., Tenn., May 14.

Good Outlook for Honey Crop.

I have 15 colonies of bees ready for business. The outlook for a good honey crop is very promising, but the weather is rather cool and wet now.

I am afraid that if we down all of the frauds there won't be much business left, but I say down them, all the same.

RUFUS WILLIAMS.

Lawrence Co., Ind., May 15.

Preparing Bees for Winter.

Heretofore on my return from Florida in the spring, I would find some dead colonies of bees; now dead colonies in the spring require more work than live ones, and I resolved to see if I could not prevent it. With this end in view, last fall I prepared each colony for winter, with my own hands. I was sure that they all had abundance of stores to last until flowers bloomed.

We use the 8-frame Langstroth hive, with cap and cover separate. I would put on a Hill's device, then spread on a thick, unbleacht-muslin sheet, cut so large that it would extend a little over the sides of the hive in all directions; then put on the cap, which shut down over the muslin, holding it tightly, thus preventing the possibility of a bee getting up into the cap. Then I put in a covering of dry, soft maple leaves, two or three inches in depth; I was careful to work them into the corners; they were dry, soft and curly. Above the leaves was

Beeswax Wanted for Cash
Or In Exchange for
Foundation—Sections—Hives or any Other Supplies.
Working Wax into Foundation for CASH A Specialty.
☞ Write for Catalog and Price-List, with Samples of Foundation and Sections.
GUS DITTMER,
AUGUSTA, WIS.

Yellowzones For Pain and Fever
An honest, efficient remedy for all Fevers, Headaches, Colds, Neuralgia, Grip, Rheumatism, etc. A general service remedy that'll please you, OR MONEY REFUNDED.
"It's a rare pleasure to find such a remedy."
"Too much cannot be said in praise of them."
1 Box, 25c.; 6 Boxes, $1; most orders are $1.
W. B. House, Drawer 1, Detour, Mich.
15Atf Please mention the Bee Journal.

CLOSING OUT PRICES
ON FIRST-CLASS GOODS.
10 No. 1 E Dov. Hives, 8-frame..... $7 50
10 No. 1 E " " 10 " 8 50
Best Polisht Sections $2.50 per M.
Other Goods in proportion.
Let me make an estimate on your wants.
W. J. Finch, Jr., Chesterfield, Ills.
10A13t Mention the Am. Bee Journal.

ONE MAN WITH THE UNION COMBINATION SAW
Can do the work of four men using hand tools, in Ripping, Cutting-off, Mitring, Rabbeting, Grooving, Gaining, Dadoing, Edging-up, Jointing Stuff, etc. Full Line of Foot and Hand Power Machinery Sold on Trial. Catalogue Free.
SENECA FALLS MFG. CO.,
46 Water St SENECA FALLS, N. Y.
1Aly Mention the American Bee Journal.

—A GENUINE—
Egg Preservative
That will keep Hen's Eggs perfectly through warm weather, just as good as fresh ones for cooking and frosting. One man paid 10 cents a dozen for the eggs he preserved, and then later sold them for 25 cents a dozen. You can preserve them for about 1 cent per dozen. Now is the time to do it, while eggs are cheap.
Address for Circular giving further information—
Dr. A. B. MASON,
3512 Monroe Street, - TOLEDO, OHIO.

One Cent Invested in a postal card will get my large Catalog of All Root's Goods. Send list of what you want, and get price.
M. H. HUNT, Bell Branch, Mich.
WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

Golden Adel Albino
Texas Queens!
Dr Gallup says they are the best he has in his yard
J. D. GIVENS, Lisbon, Tex.
Mention the Bee Journal. 9A26t.

ORDERS filled by return mail or freight for A. I. ROOT CO.'S SUPPLIES. Our choice strain Italian Queens; 1, 2 & 3 fr. nuclei. If in a hurry for Supplies, send us your orders. 36-page Catalog Free.
Jno. Nebel & Son, High Hill, Mo.
Mention the American Bee Journal. 4Atf

Italian Queens By Return Mail.
Untested, 50c.; Tested, $1.00.
Nuclei, 2 frame, $2.00, including a good Queen.
Bees by the Pound.
E. L. CARRINGTON,
5A17t De Funiak Springs, Fla.

R THE RUMELY ENGINES & THRESHERS which represent the best of their kind. The engines are **simple** and **compound, traction** and **portable.** They range in horse power from 8 to 20, and are constructed of the best material throughout, having in view large **traction power, easy steaming qualities, simplicity** and **durability. THE RUMELY SEPARATORS** combine the **apron** and **vibrator** principle in one machine, which produces a separation of grain not attained by other machines. They are **fast, clean, economic** threshers **1897 catalogue mailed free.** Write today

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THE NEW METHOD

In Health and Disease.

By W. E Forest. M. D., 12th Edition, Revised, Illustrated, and Enlarged. This is the greatest and best work ever publisht as a HOME PHYSICIAN, and as

A Guide to Health.

It makes the way from **Weakness** to **Strength** so plain that only those who are past recovery (the very few) need to be sick, and the well who will follow its teachings **cannot be sick.** It is now in many families the only counsellor in matters of health, saving the need of calling a physician and all expenses for medicines, as it teaches Hygiene and the use of Nature's remedies, **not a drug treatment.**

All Chronic Diseases

are considered, and there is not a curable disease that has not been helpt by some of the "*New Methods*" given here; even those who have been pronounced **Consumptive** have been entirely cured. While for **Rheumatism, Indigestion, Dyspepsia, Constipation, Dysentary, Liver and Kidney Troubles, Catarrh, Emaciation, General Debility, Nervous Exhaustion, Diseases Peculiar to Women,** etc., the methods are sure, and can be carried out at one's own home and with little or no expense.

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So confident are the publishers of the results, that they offer to refund the money to any one who will try "New Methods" thoroughly, if the book is returned in good condition.

The New Edition

is illustrated with a number of Anatomical plates from the best English work on Anatomy publisht, and others made expressly for this work; contains 300 pages, printed on fine calendered paper, and although the price of the first edition (much smaller in size and without illustrations) was $2.50, we sell this at $1.00, postpaid.

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For sending us two new subscribers to the Bee Journal for one year, we will mail you the book free as a premium, or we will mail it for sending your own advance renewal and one new yearly subscriber. This is a wonderful premium offer. Address all orders to—

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Muth's HONEY-EXTRACTOR
Square Glass Jars.

Root's Goods at Root's Prices.

BEE-KEEPERS' SUPPLIES in general, etc etc
Send for our new catalog.
"**Practical Hints**" will be mailed for 10c.
in stamps. Apply to—
Chas. F. Muth & Son, Cincinnati, Ohio.
Mention the American Bee Journal.

BEE-KEEPERS! Let me send you my 64-page Catalog for 1897.
J. M. Jenkins, Wetumpka, Ala.

Mention the American Bee Journal.

put a chaff cushion of 4 to 6 inches in thickness.

The hive-covers are made with cleats, and when I put them on I put a piece of section on the top of the cap to make a little crack to admit air, thus preventing dampness. If the covers fit down tightly, dampness will accumulate from the breath of the bees.

The hives thus prepared were left upon the summer stands, which consists of the height of two bricks, one upon the other at the back of the hive, and one in front; this inclination is sufficient to cause the moisture to run out of the front. Where there were rows of hives placed closely together, I wedged in leaves and grass between them, and put a board to keep the rain from running down between them.

I've no hives containing dead bees to clean, and I received a joyous welcome from all the colonies on my return home, April 13. MRS. L. HARRISON.

Peoria Co., Ill.

A Young Kansas Bee-Keeper.

Our bees wintered well, losing one colony out of 27, on account of queenlessness.

White clover is beginning to bloom, and promises well. Bees began swarming April 23. We had two swarms that date. They both went together yesterday. We had three swarms that went together, but we have the queens' wings clipt, so that don't worry us.

Here comes another one. I will see you later.

Well, they are landed safely home, just as if nothing had happened.

Well, Mr. Editor, I am doing lots of talking for a lad of 13. O, yes, here comes another swarm. Well, I will see you in a few minutes.

They are safely landed back home. It is growing a little cloudy, so I think I will be able to finish my letter. What I want to say is, father is a railroad man, and is gone from home most of the time. So I will try to make a big bee-man, if the editor will give me a show. Good by for this time.

GEORGE ROBY.

Neosho Co., Kans., May 10.

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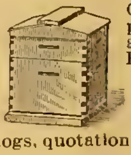

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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., May 6.—There is very little honey coming to the market, and fine lots of white comb brings 13c. Yet only a little is taken by the dealers, the season for it being over with the coming of strawberries, which are now plentiful. Extracted brings about late quotations, with beeswax in active demand at 27@28c. for best grades.

San Francisco, Calif., May 6. — White comb, 9-10c.; amber, 5-7c. Extracted, white, 5½c.; light amber, 3¾-4c.; dark tule, 2¾c. Beeswax, fair to choice, 25-27c.

New York, N. Y., May 20.—Old crop is well cleaned up, both comb and extracted, and our market is in good shape for new crop, which is now beginning to arrive from the South. It is in fairly good demand at 50@52c. per gallon for average common grade, and 55 @60c. for better grades.

Beeswax is rather quiet at 26@27c.

Detroit, Mich., May 1.—Fancy white comb, 11@12c.; No. 1, 10@11c.; fancy amber, 9@10c.; No. 1, 8@9c.; dark, 7@8c. Extracted, white, 5@6c.; amber, 4@5c.; dark, 4c. Beeswax, 25@26c. Demand is slow for honey, and plenty in commission house.

Kansas City, Mo., May 20.—Fancy white, 12@13c.; No. 1, 11@12c.; fancy amber, 10@11c.; No. 1, 9@10c.; fancy dark, 8@9c.; No. 1, 8c. Extracted, white, 5@5½c.; amber, 4½@5c.; dark, 3½@4c. Beeswax, 25c.

Cincinnati, Ohio, May 7. — Demand is slow for all kinds of honey. Comb honey, 9@14c. for fair to choice white; extracted, 3½@6c. There is a fair demand for beeswax at 22@25c. for good to choice yellow.

Minneapolis, Minn., May 1. — Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.: dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Philadelphia, Pa., May 1.— Fancy white comb, 12-13c ; fancy amber, 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3½-4c. Beeswax, 25c.

Season is getting over for comb honey—very little demand. Extracted in good demand.

St. Louis, Mo., May 1.— Fancy comb, 12@@13c.; No. 1 white, 11@11½c.; amber, 9@10½c.; dark, 7@8½c. Extracted, white, in cans, 6@7c.; amber, in barrels, 4@4½c; extra, 5c.; dark, 3@4c. Good demand for barrel stock—comb slow sale. Beeswax, 23@23½c. —prime finds ready sale at 23½c.

Albany, N. Y., May 1. — Fancy white, 12-13c.; No. 1, 11-12c.; fancy amber, 9-10c.; No. 1, 8-9c.; fancy dark, 7-8c.; No. 1, 6-7c. Extracted, white, 5-6c.; dark, 3½-4c.

Demand is all that could be expected at this season. Stock on hand small.

Indianapolis, Ind., May 1. — Fancy white 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Buffalo, N. Y, May 7.—Strictly fancy comb, 1-pound, mostly 10 and 11c. today. Demand is only fair at present. Other grades range from 5@9c. Extracted, 4@5c.

Boston, Mass., May 1.— Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Cleveland, Ohio, Feb. 20.—Fancy white, 14½@15c.; No. 1 white, 12½@13c. Extracted, white, 6@7c.; amber, 4½@5½c. Beeswax, 22@25c.

There is not very much honey in our market Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

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Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
WILLIAMS BROS., 80 & 82 Broadway.

St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.
S. H. HALL & CO.

Milwaukee, Wis.
A. V. BISHOP & CO.

Boston, Mass.
E. E. BLAKE & Co., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave

Albany, N. Y.
CHAS. MCCULLOCH & CO., 380 Broadway.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central Avs.

Doctor's Hints

By Dr. PEIRO,

100 State Street, CHICAGO, ILL.

Snakes.—This is the time of year when Mr. Reptile comes out of his hole to hunt frogs, toads, and other delicate morsels suitable for his famisht condition after a winter's fast. Therefore, striped snakie will be seen more often, grass and weeds not yet being high enough to hide him. But you need have no fear of him. Let him go in peace, and he will give you a wide birth. If you should take hold of him and he does bite you, prompt washing in the cold creek-water will make all right.

"Darning Needles."—How afraid we used to be of those big flying bugs—they carry a "needle and thread" to sew our eyes and ears up—we were told. What nonsense! They are as harmless as a kitten. But, O how they do feed on mosquitos and gnats! So you see they are just the friends you want around. They are very pretty, too, but die in 48 hours, they say.

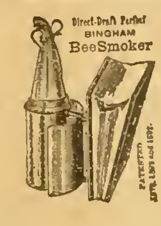
Poison Ivy afflicts some persons very badly, while upon others it makes little or no impression. Just why this is so, no one knows. It is in June—when the ivy blooms—that it is worse. The pollen then blows all over, and persons especially susceptible to this poison will be affected even if several rods distant from the plants. It first irritates the skin, then red, burning patches form, and if on the face it sometimes swells and closes the eyes, like a bee-sting. Extract of hammamelis is very soothing, and cures in a few days.

Mushrooms are said, by those who know, to be poisonous. Now, in reality, there is only one kind I would scarcely dare eat, and that is the cardinal or "red-top" mushroom, and if I were very hungry I wouldn't hesitate long at that kind, too. But all the kind you are likely to find—the white, out in meadows, the big brown ones under oak trees, the sponge, around old decaying stumps—yes, and the "puff balls," when hard and crisp. They are all excellent, cookt with your steak, or nicely fried in hot butter.

Swallowed a Frog!—Well, what of it? Most likely you are mistaken, but if you have, nothing serious can come of it. The frog is to be pitied, as it cannot live 24 hours in your stomach. The acids necessary to digestion will kill it before that time if you don't vomit it up in much less time. Above all, when you accidentally swallow something strange—a tad-pole perhaps—don't be afraid or get excited. No bad results can come of it.

Ear-Wigs are said to run into your ears and go right into the brain. Nothing of the kind, little girl. It simply *can't* do it. The drum of the ear won't let it pass, and the bitter ear-wax makes the "wig" and all other vermin and bugs glad to get out of your ear, if they can. But if they get stuck in there, you just pour water, a little warm, into the ear until Mr. Bug is washt out. Don't get excited. Keep cool.

Spruce Beer—Yes, indeed, the kind I mean is splendid. Soak the twigs of black or sweet birch cut fine, over night in nice spring water, and the next day add a pound of sugar (or more, to the taste), then put in a little ginger, and the juice and skin of a big lemon. Let it stand 48 hours, and you'll have a delicious summer drink. If you don't live where the spruce grows, sassafras will do nearly as well.



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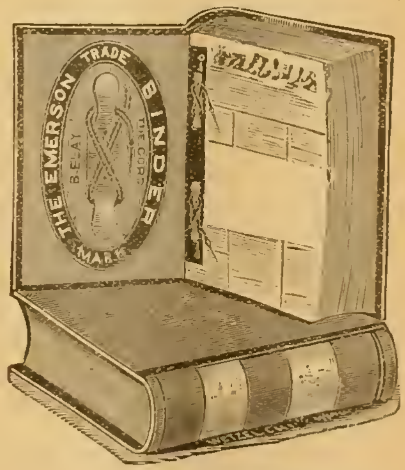

We have a few of these Emerson stiff cloth-board binders for the American Bee Journal. They make a splendid permanent binding, and hold a full year's numbers. The old price was 75 cts., postpaid, but we will mail you one for **only 60 cts**, or with the Bee Journal for one year—both together for $1.50.

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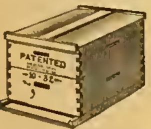

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10A19. *Mention the American* [illegible]

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500 for	$1.25	500 for	$1.00
1000 for	2.50	1000 for	2.00
2000 for	4.75	2000 for	3.75
3000 for	6.75	3000 for	5.25

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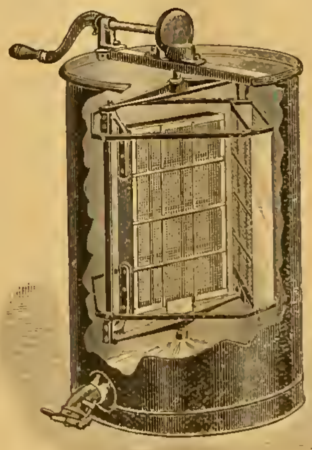

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37th Year. CHICAGO, ILL., JUNE 3, 1897. No. 22.

Contributed Articles

"THE LAND OF FLOWERS."

Bee-Keeping Thoughts, Observations and Experiences in South Florida.

BY H. E. HILL.

No State in all this great "land of the free and home of the brave" is so conspicuously defined upon the map as that jet which extends out into the sea at its southeast extremity, called "Florida." Its magnitude perhaps is not realized by one in fifty who have casually observed its geographical peculiarity yet have never traveled its railways, lakes and rivers.

As if determined to bear the Stars and Stripes beyond the domain of King Frost, she stretches forth independently and alone beneath the warmth of a winter sun until 1,146 miles of her verdant shores are bathed in tropical seas. A remarkable feature of its formation is a high ridge that, excepting an occasional inlet through which the ocean tides ebb and flow, traverses nearly the entire length of the east coast, dividing the ocean from the main land, and thus forming beautiful lagoons or tidal rivers, varying in width from ¼ to 6 miles, which are navigable for ships of light draught. The several divisions thus formed are known as the North, Matanzas, Halifax, Hillsborough and Indian rivers; Mosquito lagoon, Hobe sound, Lake Worth, and Biscayne bay. With these, numerous rivers and creeks, rising in the interior, mingle their waters, instead of emptying directly into the ocean, and all combine to form ideal water-courses for the transportation of bees in practicing the migratory plan.

Bee-keepers are located all along their banks; many of them men of experience who have achieved success, though little or nothing is known of them by the world at large, owing to a prevalent degree of modesty which (as yet) has not found its way west of the Rockies. There are a few whose experiences are more freely imparted, who are both practical and scientific in the art of bee-keeping, and are so regarded, not alone in Florida, but throughout beedom. Chief of these, I believe, is Mr. W. S. Hart, father of modern bee-culture in

Spruce Bluff

Florida. Mr. Hart is also proprietor of the Bellevue orange groves, and has for some time held a high official position in the Florida Horticultural Society. His characteristic enterprise is in evidence in every department of both fruit and honey branches of his business as well as elsewhere in Volusia county, of which he is a public-spirited and prosperous citizen.

The large and commodious packing-house in which the crops of oranges from the Bellevue groves are prepared for shipment is provided with an ingeniously devised arrangement which automatically grades the sizes without injury to the fruit, and greatly facilitates the handling of large crops. The honey-house is one of the largest, and is in appointment the most perfect that I have seen anywhere. The extracting-room is upon the second floor, and is reacht by an incline, after which the power of gravitation is utilized to perform the work entirely from the time the honey leaves the extractor until it is barreled for market. When necessary the honey is turned into the solar evaporating-room on its descent, and the desired specific gravity—which is ascertained by hydrometer test—is obtained by regulating the incline of the evaporating-pan.

Mr. Hart's uniformly high averages, resulting from his skill and thorough methods, are in a measure responsible for the present over-stockt condition of the range. Bee-keepers in and adjacent to Mr. Hart's range, are Messrs. Mitchell, Whitaker, Barber, Wilkinson, Sheldon, Galbreath, Turner, Abbott, Moore, *et al.* This locality, in 1894, shipt about 200 tons of honey. The nectar-secretion along the Halifax river, is gathered by the apiaries of Messrs. Case, Robinson, Johnson, Jones, and other small bee-keepers; while Messrs. Marsh, Clinton, and Hewett, care for the product in the vicinity of Oak Hill, at the head of the Indian river. Mr. King, located at Indian River Narrows, has extensive apiarian interests, with some opposition, in the way of smaller yards than his own, in the field; and indeed they are strewn the entire length of this picturesque little sea—over 100 miles long—which teems with numerous varieties of fish and oysters.

At its southern terminus—about 260 miles south of Jacksonville—the Indian river is intercepted by the St. Lucie, one of the most charming of the many beautiful rivers for which Florida is famed. Here is the home of Mr. O. O. Poppleton, who needs no introduction to readers of apicultural literature in the English language. Overlooking the river, nestled amid the foliage of tropical trees, vines and shrubs—some of which were brought from the island of Cuba by Mr. Poppleton upon his return from that land of insurrections, several years ago—is his cozy little home; to which picture a luxuriant growth of pineapples and rows of neatly-painted white hives, beneath a sunlit sky, form a harmonious background, and the scene is one to remind the beholder of his proximity to the torrid zone. Mr. Poppleton has also an out-apiary, and, like the majority of Florida bee-keepers, produces extracted honey exclusively.

Mr. Benjamin Parks, on the St. Lucie, is another progressive and successful keeper of bees, who believes in supplying the home market before shipping to the cities. The apiaries of Messrs. Simmons, Fultz, Winter, Hankins and the writer, all assist in gathering the honey crops of this vicinity.

An accompanying engraving will give a glimpse of our apiary near Spruce Bluff, about six miles north of Stuart. Each hive is provided with a combined honey-board and feeder, having cleats one inch square on top, upon which the lid rests, giving thorough ventilation. A groove cut part way across the end cleat, with a shorter one to catch the other end, holds a framed record-slate upon each honey-board, tho it is easily drawn out and replaced when making notes. The apiary is shaded by arbors built of poles to which palm leaves are nailed; each arbor covering two rows of hives. This feature is perhaps appreciated equally by the bees and their keeper during the heated term.

The view of our New Smyrna apiary was taken shortly after the unprecedented freeze of 1894, when all our resources were thereby temporarily cut down, which accounts for the absence of upper stories and supers.

Brevard Co., Fla.

[Concluded next week.]

⁂

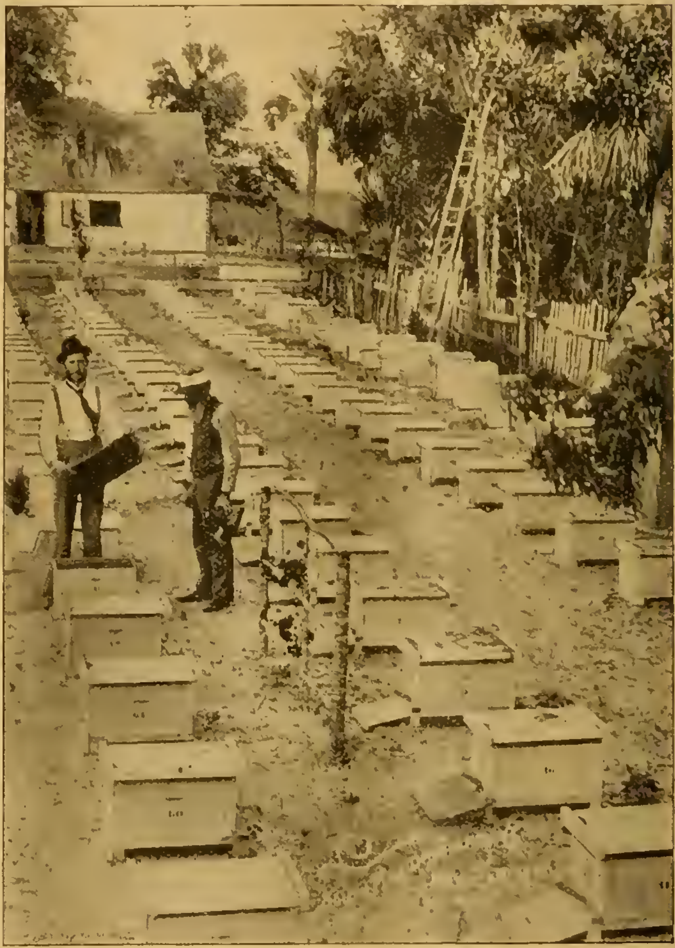
Introducing Queens—One Way to Do It.

BY J. E. POND.

I have received several letters of late asking my method of introducing queens; as this is a matter that may be of general interest, I will briefly state the method I have successfully used for years, that is, with hardly the loss of one per cent.

On the morning of a clear day, when the bees are flying freely, I remove the old queen, placing the one I propose to introduce in the top of the hive caged as ordinarily sent by mail, and there leave the cage so that the bees can have access to it till the time to let her out. In the evening of the same day after the bees have all returned from the field, and are quietly settled at home, I blow a little smoke in the entrance of the hive, wait a few moments till the bees have filled themselves with honey, then remove the cage and queen from the top of the hive, open the cage, and allow the queen to run in at the entrance, as though she had always had her home there.

The above method is simple and easy of accomplishment, and with myself, as I have stated, is a thorough success, so much so that I never use any other when honey is being gathered. It is a saving of time also to the bees, as the new queen is sure to be laying freely within a few hours after introduction.



One thing I will mention, tho, I do not open a hive for three or four days, at least after, such introduction, for fear that by so doing the new queen might be injured by being "balled."

If any who adopt the method desire to know at an earlier date whether or not a queen is accepted, they can by the use of a "drone-trap" ascertain at once, for if rejected, the queen will be found in the "trap," which can be examined at any time.

Any one who can open a cage and let loose a queen, can introduce her as above, as it does not require any special skill or experience.

Bristol Co., Mass.

⁂

Purity of Italian Queens and Drones.

BY JOHN M'ARTHUR.

[Continued from page 324.]

Another point toucht upon by the Doctor, is "the importation of queens from Italy." The results are "a conglomeration of colors, from black to mottled, with bright yellow, both queens and drones. Because of this, variation is no sign of impurity if their coming from Italy will make them so." Now this is just the point. Is there any pure stock imported from Italy? I very much doubt if any comes from there that will duplicate themselves in queens, workers, and drones uniformly markt. They are like ourselves, only emigrants, or the offspring of emigrants. It is easy accounting for their appearance in Liguria, that province lying on the bosom of the Mediterranean. They could have been easily imported or by migration found their way to the shores of Liguria. Ample proof can be given of a swarm lodging in the bow of a of a vessel trading on Lake Erie many miles from the Canadian shore, and taken to the American side. The captain is now on one of our ferry-boats, and related the circumstance to me two years ago.

They are only of a recent date in Liguria, compared with the Egyptian, Syrian or Cyprian races. They were domesticated by the Syrians and Babylonians before the more northern portions of Europe had emerged out of chaos; long before that period in which our ancestors as described by Julius Cæsar wore naked and smeared over with paint, or merely clothed with the skins of wild beasts, living in huts and worshipping the mistletoe. No doubt the Syrian race is the original type from which other forms have been derived. By careful selection and judicious crossing, not forgetting isolation, they are being brought back to the original type.

The questioner asks the Doctor the reason for this discrepancy in color, especially with queens and drones. He says: "Now is it impurity, degeneration, or what?" I have no hesitation in saying it is impurity, because two of a kind mated together, showing the same markings, and from a line of ancestors showing the same fixt characteristics according to the law of breeding, ought to produce something similar, which is not the case with our imported queens and queens reared anywhere except where there is perfect isolation.

Having disposed of Dr. J. P. H. Brown, I now turn my attention to Dr. C. C. Miller, who says to his questioner, on pages 629 and 630 of the Bee Journal for 1896:

"Drones vary very much in appearance, and there are no markings of the drones that would be taken as a test of pure Italians; the workers are the ones to go by; the test of pure Italians being the three yellow bands on all the workers."

This seems to me strange reasoning, and contrary to the physiological laws, or the laws of breeding. How ridiculous the thought of any breeder of thoroughbred stock describing with accuracy the progeny, and cannot with the same exactness describe sire and dam. If such were the case, there would be no constancy or fixedness of characteristics, hence a heterogeneous mass of colors, shapes, etc. There must be some fixt law in the mating of queens as in other creatures, whereby the worker progeny, as described by the Doctor, are all alike in markings. It does not arise from the mere fact of the queen being yellow. There is no casual or haphazard blending of the parts or qualities of two parents. Then when one parent takes the role of two (as far as her drone progeny is concerned), as does the queen, it very much simplifies matters, making doubly sure the fixedness of every characteristic, especially color, because it is a known law among breeders that the male and female contribute one-half. The male parent chiefly determines the external character, the general appearance—in fact, the outward structure and locomotive powers of the offspring—as the frame-work or bones and muscles, the organs of sense, and skin; while the female parent chiefly determines the internal structure, and the general quality, consisting of the vital organs, *i. e.*, heart, lungs, glands, and digestive organs, and giving tone and character to the vital functions, secretion, nutrition and growth. Not that the male is without influence on the internal, or the female without influence on the external—the law holds only within certain restrictions, and these form, as it were, a secondary law, one of limitations; and, furthermore, when copulation takes place, unlike most other creatures, discharges only one polar body, which is female, and therefore influences only the worker progeny.

Now this should make it plain that the drone has very much to do with the markings and outward structure of his progeny, and should make us more careful in the selection of our breeding stock.

This brings us to a third law, known to the breeder as atavism or ancestral influence. The lesson taught by this law is very plain; it shows the importance of seeking thoroughbred or well bred stock, whose descendants are from a line of ancestors in which for many generations the desirable forms, qualities, and characteristics have been uniformly shown. Hence the money value of good pedigree.

Before closing this rather lengthy epistle, a few illustrations may help to show some of the errors that have been made by many writers in describing what constitutes the proper marking of our bees. Take the entomological world—our bumble-bees. How uniform in markings, male and female alike. In any of our varieties of wasps we find the same accuracy in markings—neuters, male and female moths and butterflies, the same order in markings prevail.

In the ornithological world we find the same order prevailing; the males as a rule having the most gaudy furnishings. Look at our pigeons and their varieties, male and female alike; our poultry the same, and why not the same uniformity in markings of our bees? I have no doubt these three doctors have closely studied the anatomy of man, and can diagnose with ease the ills that flesh are heir to; but their diagnosis of what constitutes a pure Italian queen or drone falls short of the mark, according to Nature's laws, which the writer has feebly tried to point out. I cannot lay the charge of ignorance to the writers, but they certainly had not consulted the physiological laws, or the laws of breeding, or they would have seen their error, and made their replies somewhat different.

The amount of error that has been publisht of late on this question, by learned, thinking men, has been rather appalling, and the sooner we come to a decision on the question the better it will be for all concerned in the welfare of apiculture; and let us ever remember that all Nature's operations are conducted by fixt laws, whether we be able fully to discover them or not; the same causes always producing the same results. Being illiterate, I prefer to sit and be taught, but when an extended experience and close observation reveals facts, that to-day are rejected and lookt upon by so many—shall I say thinking bee-keepers?—as mere idle talk, I shall hold to my former opinions, with convictions more deeply imprest that the views presented are correct, and I am willing and able to bear all the criticism that will be showered about my ears for advancing what I know to be facts entirely based on Nature's laws.

Ontario, Canada.

Mothod of Securing Worker-Comb.

BY G. M. DOOLITTLE.

QUESTION.—As I have quite a quantity of combs which are only partly built to fill the frames, which I wish the bees to complete next summer, having as little drone-comb in them as possible, I wish you would explain a little further in regard to how you work for the building of worker-comb, as given on page 891 of Gleanings for 1896. You say there, "And by taking them (the combs) out in such a way as to keep the bees desiring only worker-brood," etc. What I wish is to understand just how this is done.

ANSWER.—When any colony is so weak that it has no desire to swarm (during or preceding the swarming season or honey-flow), such a colony will invariably build worker-comb (so that worker-brood may be reared till the colony comes into a prosperous condition), providing they do not have sufficient comb already built. Taking advantage of this fact, I use all colonies which are too weak to store honey to advantage at the beginning of the honey-flow, treating them thus:

Their combs are generally all taken from them; but sometimes I leave one comb partially filled with brood, and always one of honey, giving the combs of brood to other colonies so that they will be still stronger for the honey-harvest. I now put in one, two, and sometimes three frames with starters in them, or frames which are partly filled with comb (as our questioner says his are), just according to the size of the little colony, after I have taken their combs away. In all cases I see that each one has a frame well-filled with honey; for should storms or cloudy, windy weather come on at this time they would build no comb of any amount, and might starve; while with the frame of honey they will go right on converting the honey into comb, storm or no storm. If the right number of frames are given to suit the size of the little colony, they will fill them quickly, especially when honey is coming in from the fields, and each comb will be filled with brood as fast as built. If not too strong they will generally build comb of the worker size of cell till the brood begins to hatch from the eggs first laid in the newly-built combs by the queen; but as soon as many bees hatch they will change to the drone size of cells; or if the little colony is quite strong in bees they may change the size of cells sooner than this. Hence, as soon as the first frames I gave them are filled with comb, look to see about how many bees they have; and if they are still well stockt with bees, or are in a shape where I may expect that they may change the size of cell before they reach the bottoms of the frames with worker-comb (should I spread those apart which they already have and insert other empty or partially filled frames), I take out the combs they have already built, and thus put them in the same condition they were when I first started. But they will not build combs quite as freely this time as they did before, unless there can be some young bees hatching; so, if I can conveniently, I give them a comb containing mostly honey and a little brood (if they have such a comb it is left with them, which is more often the case than otherwise) from some other colony, when they are ready to work the same as before.

In this way a colony can be kept building worker-comb all summer, or till the bees are nearly used up from old age, the colony becoming so small as to be unable to build comb to any advantage, under any circumstances. But if just the right amount of brood is left, or given them, so that they stay in about the same condition, they will build worker-comb all summer by the apiarist supplying honey or feed when none is coming from the fields. If not so strong but that I think they will still continue to build worker-comb, instead of taking the brood away, I spread the frames of combs (now built) apart, and insert one or more empty frames between, when these will generally be filled with worker-comb before enough young bees hatch for them to change the size of cell. But *this* is always to be kept in mind, whenever you find them building drone-comb: The combs they then have, all except the one mostly filled with honey, are to be taken away so that they may feel their need of worker-brood again, when they will build cells of the worker size once more.

I have had hundreds of frames built full of worker-comb in this way, hundreds completed, as our questioner proposes to do, and hundreds "patcht" where I had cut out small pieces of drone-comb, which had gotten in, in one way or another. If any one wishes a mutilated comb to be fixt so it will be a surprise to him, just give it to one of these little colonies and see what nice work they can do at "patching" with *all* worker-comb.—Gleanings.

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Willthe Good Years Come Again?

BY S. A. DEACON.

Among the 22 replies given to the above question in the American Bee Journal of Dec. 24, 1896, by the leading apiarists, I fail to see *one* which treats the subject from anything approaching a scientific point of view. Most of the answers would seem to have been given in a random, haphazard, happy-go-lucky sort of way. One curtly says: "If the conditions are the same, why not?" Another opines that, "All depends on summer drouths and winter snows." Precisely! But in no case is the great desideratum of a foreknowledge of coming seasons mentioned, or any hints given as to how such knowledge may be obtained. Yet I have reason to believe that it *can* be obtained; that thoroughly reliable season prognostications, or forecasts, can be formulated; the outcome of a careful and patient scrutinizing of your meteorological records as far back as they go.

Three of the respondents came, tho all unconsciously, very near to suggesting some such method of ascertaining the nature of the seasons in advance; they, at least, indirectly affirmed their belief in the theory of weather cycles. Eugene Secor, for instance, answers: "The thing that hath been, it is that which shall be." Mrs. L. Harrison, also drawing upon scripture, laconically replies, "What has been will be again." A. F. Brown replies, "History repeats itself, as the sun rises and sets." To all of which I again, and very emphatically, observe—*pre*cisely!

These three respondents have given the clue; it only remains for some of the studiously inclined members of our fraternity—perhaps Dr. Miller, Dr. Brown, Hon. Eugene Secor, or the Rev. Mr. Mahin—to devote a little time to ascertaining, from a careful study of the rainfall and other meteorological records of past years, with what degree of regularity "the thing that hath been" was, and *will be again;* and whether, haply, repetitions in meteorological history are, equally with that of human and national events, as regular as the rising and setting of the sun. In short, they must go cycle hunting; and if they should meet with anything approximating the measure of success in that fascinating pursuit which has rewarded the pains and researches of Mr. D. E. Hutchins, chief conservator of forests for this colony, their labors will by no means have been in vain.

Altho our records only go back to 1841, they have sufficed for the establishing, and that most incontrovertibly, the fact that seasons of drouth and of abnormally abundant rains possess an unfailing periodicity. Nor have the untold benefits derivable from the prognostications, or forecasts, we are now enabled to make, been confined to this colony alone; for, from a few simple meteorological observations—in which the barograph played an important part—made near Cape Town, Mr. Hutchins was enabled to predict and forewarn the Government of India of the failure of the monsoon rains there this year, thus affording them time to make preparations for coping with that most awful of all calamities, and which, alas! is now prevailing—a famine amongst the teeming native population—calculated at three hundred million souls!

The fact of the climatic conditions of two countries separated from each other by a vast sea, and *nearly 4,000 miles apart*, being governed or influenced by one factor, may serve as a hint to prospective cycle hunters on your side, not to confine their attention too closely to local surroundings, or to prominent local topographical features, though these may, of course, influence in a greater or less measure the operations of the main factor, and which may have its origin some thousands of miles away. The vagaries of the Gulf Stream should (by the aid of Lieut. Maury's publisht researches) be studied in order to ascertain what amount of regularity there is in its irregularities; for to irregularities—regularly recurring—in the southeast trade winds is due the failure of the monsoon and the deplorable state of affairs obtaining in India to-day.

It is just possible, too, that great climatic variations on the continent of *North* America may be not totally disconnected—may, indeed, be possibly closely connected—with the great and regular meteorological disturbances obtaining every ten years (or is their storm cycle one of eleven years? I do not remember just now) on the sister continent of *South* America, when prolonged and severe drouth carries off millions of cattle and sheep, millions more being destroyed by the heavy floods which regularly supervene. This fixt South American cycle may form valuable material for the North American cycle hunter to work on, considering the recent discovery, that absence of normal energy in the regular southeast summer winds (and, as shown by the barograph, their nature having become cyclonic) at the Cape of Good Hope, resulted in, or presaged, the failure of the crops on a continent 4,000 miles away!

You may somewhat despondently say that your climate, especially in the eastern States, is *too* irregular and altogether too variable, defying all forecasts and calculations. So thought we, too, until Mr. Hutchins appeared on the scene and reduced the confused and perplexing data of meteorological records to order, and enabled every farmer to have the oracle at his elbow. Go ye and do likewise, oblivious of the fact that cycle hunting has of late years fallen somewhat into discredit, owing to the poor results of much labor on the Sun Spot cycle in your hemisphere; for new searchers, with a knowledge of the incalculably valuable results of Mr. Hutchins' labors before them may, likely as not, hap on something to aid a solution of the problem which their predecessors in the field of inquiry have overlookt.

As a still further incentive I may mention that Mr. H. C. Russell, Government Astronomer of New South Wales, has, after much labor and research, succeeded in establishing a weather cycle for Australia. So we see that markt climatic changes can now with certainty be predicited in South Africa, South America, Australia and India; and the discovery of regular periodicity in such markt variations being of so recent origin should, I think, greatly encourage the desire to work out a dependable cycle, or cycles, for your part of the world, too. I would suggest that a commission be appointed, including among its members the four gentlemen above named, adding to the list such men as the Hon. R. L. Taylor and Prof. Cook. Let them carefully examine and collate all your past meteorological records, and see how markt changes in other parts of the world have synchronized hitherto with similar atmospheric variations in the States. If they examine as they needs must do, the shipping records, they will doubtlessly find a regularity in the recurrence of periods of an abnormal number of casualties coinciding, in all likelihood, with abnormally wet seasons inland. Scientific men are not often smart men of business, but see how Mr. Hutchins once turned his ability to see into the future to practical account, as appears in his forecast for 1897. He says:

> "We shall have deluges of rain. Violent storms will rage over the whole of South Africa. Marine insurance shares may fall, as happened at the last storm cycle year, when I chanced to hold some of those shares, and seeing what was coming I sold them out and saved three shillings per share!"

As a guide to prospective cycle hunters, let me show how Mr. Hutchins set to work. By examining the rainfall records he found the average fall at the Royal Observatory, near Cape Town, to be 25 inches a year; but he also noticed that certain years showed a great excess, thus: 1850—33 inches; 1859—36 inches; 1869—32 inches; 1878—41 inches; and 1888—36 inches. At first these periods seemed too irregular to found a cycle on, till a little thought and closer observation showed them to be *regularly* irregular, these years of heavy rains occurring every 9 and 10 years alternately. Here was a valuable discovery! Our farmers, who have been struggling through three or four years of severe drouth, are now assured of an exceptionally wet season this year, such as they have not had since 1888, and they are rejoicing and planning in sure anticipation thereof accordingly. These unusually heavy rains will commence in June—our winter—two or three fairly good years will follow; but then, alas! we have also the grim satisfaction of knowing—and it is perhaps one of those cases where blissful ignorance would be preferable to wisdom—that the three years immediately preceding our next cycle year—1905—when the influence of the last storm cycle year has past, will be seasons of bitter drouth. Still, tho the knowledge may not be palatable, we are at least forewarned, and can order our affairs accordingly, and lay up not for the proverbial wet, but for the coming *dry* day. Mr. Hutchins predicted an unusually wet winter for 1897, with a few good years to follow, as far back as 1887! How easily and reliably could he not have answered the "Question-Box," interrogatory had it been propounded here!

I said just now, "Until the next cycle year—1905." Among such as have been sufficiently interested to follow me thus far, there are some who may perhaps wish to correct me; for Hutchins' storm cycle, it will be observed, is not due until 1907. True, but there have fortunately been other cycle hunters in the field, and only one very wet year out of 9 or 10 "isn't good enough;" so, as the following table shows, we have Meldrum's cycle, giving us an exceptionally rainy season every 12½ years. Further, we've the Sun Spot cycle, with a periodicity of something *under* 12 years. This table should prove instructive to those who may contemplate taking an active interest in the subject:

Rainfall at Ceres. South Africa.

1878	53 in.—Storm Cycle.	1888	62½ in.—Storm Cycle.
1879	29½	1889	37½
1880	30—Meldrum's Cycle.	1890	32
1881	32¾	1891	31¼
1882	32	1892	56—Meldrum's Cycle.
1883	44—Sun Spot Cycle.	1893	46
1884	28	1894	37
1885	41	1895	57½—Sun Spot Cycle.
1886	38¼	1896	25
1887	35¼		

Meldrum's cycle would seem to have been a bit out of gear in 1880, unless it's a misprint. Nor did the abnormally heavy rainfall of 1895 extend, as this year's will do, all over the colony. Still, on the whole, the theory serves.

Now from this table it will be seen that Meldrum's next big rain year will be 1905, the Storm cycle's in 1907, and the Sun Spot's also in 1907—pretty well all of a heap, like Brown's cows! The result will be a series of splendid seasons, good harvests, cheap food, the milk streaming from the cows' udders, and the honey running out of the hive-entrances. Oh! but we shall have to pay for it—unless we pay Nature's debt in the interim; for, like a swarm of bees, these cycles have clustered together, and will go on together, separating only very gradually, for some time to come; this indicates long and severe drouths before their recurrence. Here again ignorance would have been bliss; and many would perhaps gladly say with Paddy, who, when in a storm anxiously inquired of the captain if he had an almanac on board, and being answered in the negative, despondently remarkt, "Then, sure, we'll have to take the weather as it comes." But I suppose we must e'en take the good and the bad together, enjoying with becoming gratitude the one, and doing our best to be cheerful and resigned under the infliction of the other.

I cannot help thinking but that with comparatively little labor a dependable cycle, or series of cycles, could be formulated for California, and perhaps also for Texas (two of your great honey-producing districts seemingly). In the eastern States you have, I know, many local interferences or subfactors to contend with, and to take into consideration, such as your big lakes and the gulf stream; but that there are fixt and immutable rules regulating your seasons *on the whole*, and regulating the seeming irregularities of that troublesome though beneficent gulf stream, there can be little doubt.

Scan the shipping records along your eastern coast to begin with, and see if there is not a periodicity in years of numerically great casualties, and then compare with your rainfall records, and see if these abnormal shipping casualty years do not synchronize with seasons of abundant rains. I remember to have read somewhere that increase in force and volume of the gulf stream is always accompanied by unusually stormy weather. So, then, if this increase occurs with any degree of regularity, Lieut. Maury's publisht researches will probably afford the knowledge.

I have little doubt but that a dependable cycle for both sides of your continent can be formulated with a little labor and care, when you will no longer need to propound such questions as the above, nor yet like Paddy, be forced to take the weather as it comes; you will at least be able preparedly to meet it.

But I fear I am growing tedious and taking up too much of your limited space. I wish success to any and all who may hereby be stimulated to embark on a cycle-searching tour, and predict for the whole of the United States a very wet summer this year.

South Africa.

P. S.—Between 1900 and 1905 we are to have a spell of drouth such as has not been experienced in the colony since 1844. So you see our X rays almanac tells just what is in store for us, years in advance. S. A. D.

CONVENTION PROCEEDINGS

Report of the North American Convention Held at St. Joseph, Mo., Oct. 10-12, 1894.

REPORTED BY LOUIS R. LIGHTON.

(Continued from page 326.

The following is an essay in full, as written by the Secretary, Frank Benton, only an outline of which he gave at the convention:

WHAT SHALL WE PLANT FOR HONEY?

One who travels over a few hundred miles of our country cannot but note the meager number of colonies of bees which help to add to the thrifty look of the homes of those who till the soil. He is forced to conclude that not one-tenth of the nectar produced is gathered. More than nine-tenths of it are secreted but to be evaporated, to be reabsorbed by the plants, or to be collected by wild bees and other insects. Why, then, should we consider planting for honey? The answer is simple. It is not often we can find one locality giving a continuous and abundant honey-flow from spring until fall, indeed such localities are very rare, and even if we find one which nearly or quite fulfils these conditions we may not be able to locate an apiary there. To bring the location we already have up to such a standard is what every one owning even a few colonies would be glad to do if at all practicable, and he is especially anxious to see his way clear to do this if he is the owner of a home and expecting to remain there permanently and engage in the cultivation of bees. He wishes, moreover, to make his honey-crop a more certain one—to remove as far as he can all possibility of having to depend upon mere luck in connection with his chosen occupation.

The solution of this question in its details must be a matter for each bee-keeper to work out for himself. But experiment and actual practice have indicated certain lines within which we may look for a measure of success in this direction, and certain others which will only lead to disappointment. My own experience of over a quarter of a century, as well as my observations among the bee-keepers of this country and of the more advanced nations of the Old World, lead me to the firm conviction that the systematic, advanced bee-cultivation of the future will, and must of necessity, be based largely upon the supplying of addditional sources of pasturage for our bees besides those now existing, or, in some instances, in place of these—must fill the gaps, and, in so far as is possible in any branch of agriculture, must replace uncertainty with certainty. I will merely indicate a few of the things we may plant and encourage others in planting with this object in view. From many of these we can hardly hope for great gain ourselves, but others—our children or our children's children—will bless us for the gift.

Just here there comes to my mind a very pretty little French poem which I do not remember to have seen translated. Some careless young fellows riding along see a white-haired octogenarian planting trees and deride him for it, asking, "*car au nom des dieux, je vous prie, quels fruits pouvez-vous en recueillir?*" (for, in the name of the gods, I ask you, what fruits can you gather from them?) The old man, pointing to trees laden with fruit, replied: "Because some one planted before me, I am able to eat of these fruits."

I shall start out with the proposition which I hardly think anyone will now dispute: That we know of no plant which, at the present prices of land and labor, we can possibly hope will return us, even under the most favorable circumstances, a crop of honey sufficient to repay its cultivation for honey alone. In other words, our honey-plant must be worth cultivating for other reasons besides its honey-producing qualities. Indeed I have always been surprised that any one should have seriously entertained what I am tempted to call the chimerical idea that any plant could be profitably cultivated for its honey alone. This excludes from my list many hundreds of plants which are good producers of honey but can yield us little or nothing beside, and though I may mention some of these as worthy of cultivation for ornament, in the main the honey they yield must be considered but a drop in the bucket.

Again, certain honey-yielding plants ordinarily grown on a small scale in gardens, may, under favorable conditions, be raised extensively, *i. e.*, made main crops with profit in two directions. Such are of course only to be considered of some account to the apiarist when so grown. Having thus restricted the list through rejection of many plants, I will proceed to refer to certain available plants, more in the way of suggestion than with the idea, in the limited time at my command, of completeness.

In order to choose intelligently from such a list those plants or crops most likely to aid the bees in filling in their time to our profit, it will be necessary for each bee-keeper to make a most careful and thorough study of the honey-producing flora of his locality. He should know the gaps in his list of honey-yielders—the periods that are to be filled in, and select accordingly, due regard being also had to all other considerations, such as adaptability of the soil and climate to the crop, cost of cultivation, market for the resulting products, etc., including the permanent effect upon the fertility of the land used.

I will class the plants I shall mention under three general headings: 1st, Those cultivated primarily for the forage, fruit, or seed they yield, and secondarily for their honey return; 2nd, Those which are chiefly ornamental, but which also yield honey or pollen; and 3rd, Those which should be made the subject of experiment.

I. PLANTS FOR FORAGE, FRUIT, OR SEED, AND HONEY.

Perennials:—

Apple (including Crab Apple), Apricot, Almond, Banana, Blackberry, Cherry (incl. Improved Dwarf Rocky Mountain Cherry, *Prunus demissa*), Cranberry, Currant, Gooseberry, Grape, Juneberry or Serviceberry (*Amelanchier canadensis*), Nectarine, Medlar (*Mespilus*), Orange (incl. Hardy Orange), Peach, Pear, Plum, Persimmon, Quince, Raspberry, Strawberry.

Of the fruit trees and shrubs just named, the apple is one of the excellent producers of fine clear honey. It would surely be counted a great yielder if our bees were always in condition to take advantage of it. As it is, few get any surplus from it. Their bees merely build up on it. This is where good wintering and early spring stimulation come in play. There have been some writers—perhaps even some of them still insist on the same plan—who have said they wanted no brood in their hives before May. Even in Northern latitudes I prefer to have brood in January, so as to have young bees emerging in February and the months following. Then with good weather during fruit-bloom, the yield from apple, peach, and cherry, will more than replace the food consumed. The blossoms of the crab apple come rather in advance of the other apples and are much liked by the bees, while the improved cultivated varieties are a welcome addition to our fruits, and should be more generally planted.

Almonds (*Amygdalus communis*) can be grown wherever peaches thrive. The hardshell varieties are hardier than the soft-shelled or paper. A variety introduced from Russia is said to be quite hardy everywhere. Bees work as diligently on almond as on peach blossoms. On the shores of the Adriatic sea it is counted an important harvest.

The Banana, now coming into cultivation in the subtropical parts of our country, is a great honey-secreter, and its blossoms appear in succession during many months.

The Dwarf Rocky Mountain Cherry has been improved by cultivation and is not at all like our Eastern wild cherries, but similar to the sweet cultivated varieties. It is hardy in all situations and very productive. The trees are laden with blossoms in early spring to the great delight of the bees—and the bee-keeper!

The Juneberry or Serviceberry in some of its forms grows wild in nearly all parts of the Union, and is familiar no doubt to most of you, as well, also, as the fact that its time of blossoming varies from February to May according to the locality and species or variety. It may not, however, be known that some of the State experiment stations have been testing the different sorts and have reported very favorably upon certain of them. The cultivated Juneberry derived from the Rocky Mountain variety or perhaps species (*Amelanchier alnifolia*) is really a meritorious fruit comparing very favorably with the huckleberry. The Improved Dwarf is probably from this western form. It is hardy everywhere and very productive. Besides its value for its fruit it is one of the most ornamental shrubs for a lawn, the white petals of the showy blossoms contrasting well with the dark green glossy leaves. It grows from suckers which are so easily transplanted that certain nurserymen are already offering them as cheaply as currant bushes.

Some discussion as to the quality as well as quantity of honey produced by the orange has taken place in apiarian journals within a year or two. But there can be only one side to the subject, for the orange, in countries where it is for several weeks the exclusive forage-plant of the bees, yields an immense amount of exceedingly fine honey—a quality, in fact, which is to be rankt among the finest honeys of the world. Several years' experience in bee-keeping in such countries enables me to speak positively concerning this. Those portions of our country adapted to the growing of the orange can look with certainty upon increast honey-returns and an excellent quality, too, as the orange-groves are extended. Many of our Northern friends are not aware that at a small cost they may raise as an ornament and for its fruit the Hardy Orange (*Citrus trifoliata*). This tree produces the same fragrant white blossoms as the ordinary orange, and fruits quite similar in appearance. The latter are, however, too acid for use except as lemons to make a cooling drink, or for marmalade. The tree may be used as a hedge plant, being dense, thorny and dwarf, or, trimmed up, is of exceeding beauty on the lawn, the blossoms continuing to appear all summer. It has withstood a temperature of 18° below zero as far north as New York. It fruits freely in Maryland. The Japanese or Satsuma sweet orange, one of the mandarin class, is also half hardy, at least it has been raised as far north as North Carolina.

The Japanese persimmon (*Diospyros kaki*) deserves for its large and excellent fruits to be more frequently planted in the Gulf States and westward. Bee-keepers located there should set the good example, for all of the dozen or more varieties introduced, furnish a rich feast for the bees early in the season. The Italian species (*D. lotus*) is said to succeed well also in California. The native persimmon (*D. virginiana*), likewise a a good honey-yielder, is not often found wild in the Northern States but will thrive almost anywhere. The fruits after sharp freezing are much relisht by many—children especially. Selection and cultivation would improve them.

Blackberry and strawberry I have never thought of much importance as honey-yielders; perhaps if no other sources were available at the time, the bees would get an appreciable return from them.

The Cranberry (*Vaccinium macrocarpon*), is said to yield honey. I have never had an opportunity to verify this. The plant is closely related to others which are good producers.

The Raspberry is a very important honey-plant. I do not think it has received the attention it merits. Every one, of course, knows that nice raspberries generally find a ready market; also how easy it is to raise them. A few acres well cared for will furnish an important addition to the bee-keepers income. The red is said by some to yield more honey than the black. But I think this is because more reports have come from the East where the red is more abundant in the wild state than the black. In the Middle Section there are regions where the black is most frequent, and I think it yields equally as well as the red. But a careful comparative test would be necessary to decide this. The quality of raspberry honey is superb; it is clear like crystal, thick, and has a delicious, berrylike flavor. As the plant blossoms two or three weeks after apple and other fruit trees, the weather is likely to have become settled and the colonies are sure to be more populous—ready to take advantage of this incomparable feast, and all other honey-plants—even the famous clovers—are neglected for the modest, noddingr aspberry, so rich in nectar.

(Continued next week.)

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

Questions AND Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Sweet Clover in an Orchard.

Will sweet clover be injurious to an orchard? As it is such a vigorous grower, it has seemed to me that it might injure fruit trees by taking the moisture from them, like alfalfa.

OHIO.

ANSWER.—The same objection that holds against any growing crop in an orchard will hold against sweet clover. If kept cut down or fed down, it would be neither better nor worse than grass of the same growth.

Against Adulteration—Perhaps too Crowded.

1. I have never heard anything about stopping adulteration in New York State. When they get ready to do so, I will be ready to help with all I can do, if I have to work out nights to get funds to help put it down.

2. I have four colonies of bees this spring; three are doing splendidly, but the other one hangs around the entrance, and partly stand on their heads, fluttering their wings. What is the cause?

NEW YORK.

ANSWERS.—1. The thing that you can do most appropriately and effectively to put down adulteration, if you have not already done so, is to send a dollar to Dr. A. B. Mason, or to Geo. W. York, to make you a member of the New Union, which is especially designed to put down adulteration. Every dollar that goes in as a membership fee will help the chances for a systematic attack upon the whole adulteration business. If New York be the best point for first attack, no doubt that will be selected, but wherever the attack is made, it will pave the way to be followed up in other States.

2. Probably if you open up a larger entrance, or raise the hive on little blocks, the bees will get down off their heads and fold up their wings. The colony is probably strong, the entrance contracted, and the hive too warm, so a sufficient number of bees is detailed to stand at the entrance and fan with their wings so as to cool off the hive.

A "Sweet Sixteen's" Dozen Questions.

1. If a ripe queen-cell is inserted in a hive that has just cast a swarm, will the bees tear it down, or will the queen-cell hatch and the young queen tear down the remaining cells?

2. Are pure Italian drones any differently markt than hybrid drones?

3. Are drones reared from the daughter of a pure Italian queen that has mated with a hybrid drone as good as those reared from a purely-mated Italian queen.

4. How would it work to have queen-cells started in a queenless colony, and have them finisht in the upper story of a colony containing a laying queen below, with a queen-excluding honey-board between, and not under the swarming impulse, as per Mr. Doolittle's plan?

5. Would a virgin queen be accepted in a colony that has just cast a swarm?

6. Is there any safe way to introduce a virgin queen to a full colony or nucleus? If so, how can I do it?

7. Are the bees of queens brought from the North to the South any more apt to be hardy than those brought from the South to the North?

8. Which will produce the best results, natural swarming or artificial?

9. Will the bees be just as gentle, as good workers, and as hardy if pure Italian leather-colored bees are crost with pure yellow 3-banded stock or 5-banded stock, as either race would be if alone?

10. Does it improve the stock to buy Italian queens from different breeders and mix them with pure Italians?

11. How can I determine as to whether a queen is bred from a purely-mated mother when she is mated with a hybrid drone?

12. Are drones bred from the daughter of a pure Italian queen that has mated with a hybrid drone, as pure as those reared from a purely-mated Italian queen?

F. C., Galt, Mich.

P. S.—This is my third year in the bee-business. I am 16 years old, and am intensely interested in bees.

ANSWERS.—1. Bees are somewhat freaky, and sometimes tear down cells of their own starting, while others are allowed to stand, but, as a rule, if you insert a queen-cell in a hive from which a swarm has just issued, it will be allowed to go on to maturity, providing it is older than any other in the hive. Whether the young queen which emerges from the cell of your inserting is allowed to kill all her rivals or be forced to issue with a swarm, depends upon circumstances, chiefly the strength of the colony. The main point in the question is that the bees will treat the cell you insert about in the same way as if it had been one of their own construction, but probably it will not be quite so sure of being undisturbed as if it had been present from the start.

2. They are likely to have more yellow on them, but the marking of drones is not as constant as that of workers.

3. The drone is practically of the same blood as his mother, no matter what the mating may have been.

4. Sometimes all right, and sometimes all wrong. The chances of success may be increast by making the separation from the brood-nest greater. Lay a cloth or a piece of tin over the excluder, merely allowing the bees to go up through the outside perforations, or else have three or four stories and have the cell in the upper story.

6. Generally. Perhaps always, if the "princess," as the English call her, is young enough. Indeed a young queen just out of the cell will be accepted in any colony, even if a laying queen be present, but she will likely be killed when she is a few days old if a laying queen is present.

6. Simply take one just out of the cell and place it right on the brood-comb among the bees. You may also succeed with one of any age, in the following manner: Make sure that there has been no unsealed brood in the hive for 48 hours; go to the hive just after bees have stopt flying in the evening, and quietly drop the queen on top of the frames, allowing her to crawl down.

7. The probability is that there is no difference noticeable.

8. That's a question for each one to settle for himself. On page 291 Prof. Cook says: "We used to hear a good deal about dividing bees, or artificial swarming, but in these latter days I think very few attempt any increase except by natural swarming." Apparently the good Professor thinks because little is said about it nowadays it is little practiced, a conclusion that is hardly warranted. We used to hear much about the advantage of movable-frame hives, and nowadays little is said about it, but it does not follow that "very few" use such hives. On the very next page C. Davenport, who produces honey on a large scale, says: "In producing comb honey, instead of allowing natural swarming I prefer dividing, or artificial swarming, and I can by this means obtain better results with less work," but he thinks the inexperienced may do better with natural swarming. Last year I made an increase of 121, and had only two or three natural swarms, one of which sailed away while I was trying to get it into the hive. Neither do I think Mr. Davenport and myself are alone in this matter. But some of our best bee-keepers prefer natural swarming.

9. I think likely, but I don't know.

10. Yes, providing you don't get inferior stock.

11. You can't do it all.

12. If this is the same as question 3, you have the answer there. If you mean drones from a queen whose mother was impurely mated, then the drones are not pure.

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

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EUGENE SECOR, Forest City, Iowa.

VOL. XXXVII. CHICAGO, ILL., JUNE 3, 1897. NO. 22.

Editorial Comments.

Time of the Buffalo Meeting.—A subscriber asks the following question:

MR. EDITOR:—When is the big convention to be at Buffalo, and what will the round trip from Chicago cost?
PATRICK.

It has practically been decided that the Buffalo convention will be held the last week in August. The exact dates are not yet arranged, but will be announced later.

The Grand Army rate from Chicago is one cent a mile each way at that time. The distance from Chicago to Buffalo is 600 miles. That would make the round trip cost $12 from here. Cheap enough!

We hope soon to be able to give fuller information concerning the Buffalo meeting.

◆

The Old Union and Adulteration.—In a private letter, Dr. Mason, Secretary of the New Union, wrote us as follows concerning Prof. Cook's suggestion that the Old Union take up the subject of honey-adulteration:

> "I believe Prof. Cook is 'off his base' in urging that the National Bee-Keepers' Union take up the matter of adulteration; and that Mr. Newman is right in the stand he takes, that the funds of the Old Union were not contributed for that purpose, and as there is an organization in the field, the principal object of which is to look after that matter, it is not wise for the National Union to enter that field. To be sure, the constitution of the National Union gives the Advisory Board the power to use the funds for any purpose it sees fit, that will benfit bee-keepers, but it seems to me it would be a very unwise move to act in accordance with Prof. Cook's suggestion, for the Old Union itself has but recently voted *not* to do that very thing, and that was what brought the United States Bee-Keepers' Union into existence. So, under the circumstances, I believe Mr. Newman is right, and Prof. Cook is wrong; and as a member of the National Union, I am most decidedly opposed to the Advisory Board going contrary to the express wish of the Old Union, as shown by the two to one vote of last January.
>
> "Had Prof. Cook been as anxious about the adulteration matter last fall, as he seems to be now, I fully believe that the New Constitution would have been adopted by the Old Union, and there would now be but one national organization."

We concur in all that Dr. Mason says. The majority of the Old Union's members, at the last election, practically voted to have that organization stick to its original object—that of defending bee-keepers in their right to keep bees. As one of the members of the Old Union we submitted gracefully to the will of the majority, tho we did, and do yet, object to the unfair means used by the General Manager to secure the majority of the votes against the New Constitution, which, if adopted by the Old Union, would have placed that organization right with the New Union in all its grand objects for the protection of all bee-keepers and all their interests.

◆

Score Another for the New Union.—A honey-producer had in Pennsylvania shipt some honey to an Ohio commission firm, and could get no returns. When sending his membership fee to Secretary Mason, he inquired about the reliability of the firm. He was written concerning what had been done by Dr. Mason for another bee-keeper, and was askt to forward the firm's letters. He did so, and the Doctor wrote them as Secretary of the United States Bee-Keepers' Union, telling the objects of the New Union, and that their patron was a member of the Union; that it expects to stand by its members, especially where dishonest commission men were concerned. The result was that the firm "came down" handsomely, and the shipper will get his pay.

That's the kind of work we want done for bee-keepers who are likely to lose their honey. It will pay to become a member of the New Union. Better join at once, aud be ready to call upon it when in trouble.

◆

An Early Chicago Swarm.—There are quite a good many bees kept within the city limits of Chicago, and yet so well do they attend to their own affairs that scarcely any one knows of their existence here.

We had an early swarm this year—it issued Sunday, May 16. We had purchast a few colonies as a speculation, the day before, and kept them in the yard with our others for a few days, and while there one of them sent out the swarm. Of course they didn't know any better than to swarm on Sunday. Our own bees are "trained" to keep Sunday better than that! Why, we wouldn't have bees that would be so naughty as to swarm on Sunday!

But we hived that Sunday swarm, on Sunday, just the same! It was a very small one, perhaps a quart. It had settled on the side of a big hole in the ground in a vacant lot adjoining, and we simply set a hive with the entrance up against the swarm, and soon had them all on four empty combs.

But they didn't stay. The next day, about noon, Mrs. York telephoned us to come home (six miles away), for the bees were swarming! Sure enough, there was that same Sunday-fracturing swarm hanging on a small tree. This time in a Manum swarm catcher we carried them back to their hive, and dumpt them on top of the frames. But to have no more of their leaving home we just gave them a nice frame of hatching brood, and that kept them all right, and they are doing well. Too many baby bees around then for them to desert again. Even Chicago bees have a little feeling left. They are not quite as bad as some of the politicians at Springfield.

May 16 is pretty early for swarming in this locality, but

Chicago bees are hustlers. They seem to catch something of the business spirit of the people who live here, tho most of the folks seem to be in too big a hurry to collect the dollars, to live as they ought to.

A bee-keeper living a few miles south of Chicago had young drones flying May 7. Nothing slow or lazy about that.

The Subject of Foul Brood is quite an important one in many States—especially in Wisconsin—so much so that Mr. N. E. France, the Official Foul Brood Inspector for that State, requests us to republish for the benefit of the many bee-keepers there, some of the articles that appeared in the American Bee Journal in 1893 and 1894, by that expert foul-brood exterminator, Mr. Wm. McEvoy, of Canada. We shall be glad to comply with Mr. France's request, as it will also be very profitable for all the new readers that have been added to our list the past two or three years, and those that are now subscribing.

We begin this week with a republication of the new Foul Brood Law recently past by the Wisconsin Legislature, which is considered by Mr. McEvoy to be a model one for other States to follow in their efforts to secure the passage of a law on the subject of foul brood.

We now offer the Bee Journal the balance of the year to *new* subscribers for *only 50 cents*. This will give each one seven months' numbers, and will include all the foul brood articles that will be republisht this month and next. It is a good time for our present readers to get their bee-keeping friends to subscribe.

Here is the law now in force in our neighboring State:

THE WISCONSIN FOUL BROOD LAW.

AN ACT for the suppression of foul brood among bees in Wisconsin.

The people of the State of Wisconsin, represented in Senate and Assembly, do enact as follows:

APPOINTMENT.

SECTION 1.—Upon the recommendation of a majority vote of the members of the bee-keepers' societies of Wisconsin, the Governor shall appoint for a term of two years a State inspector of apiaries, who shall, if required, produce a certificate from the Governor that he has been so appointed.

DUTIES.

SEC. 2.—The inspector shall, when notified, examine all reported apiaries, and all others in the same locality not reported, and ascertain whether or not the disease known as foul brood exists in such apiaries; and if satisfied of the existence of foul brood, he shall give the owners or care-takers of the diseased apiaries full instructions how to treat said cases, as in the inspector's judgment seems best.

DESTRUCTION OF BEES.

SEC. 3.—The inspector, who shall be the sole judge, shall visit all diseased apiaries a second time, and, if need be, burn all colonies of bees and combs that he may find not cured of foul brood.

VIOLATIONS.

SEC. 4.—If the owner of a diseased apiary, honey, or appliances, shall sell, barter, or give away, any bees, honey, or appliances, or expose other bees to the danger of said disease, or refuse to allow said inspector to inspect such apiary, honey, or appliances, said owner shall, on conviction before a justice of the peace, be liable to a fine of not less than fifty dollars nor more than one hundred dollars, or not less than one month's imprisonment in the county jail, nor more than two months' imprisonment.

ANNUAL REPORT.

SEC. 5.—The inspector of apiaries shall make annual report to the Governor of Wisconsin, giving the number of apiaries visited, the number of diseased apiaries found, the number of colonies treated, also the number of colonies destroyed by fire, and his expenses.

EXPENSES.

SEC. 6.—There is hereby appropriated out of any moneys in the State treasury, not otherwise appropriated, a sum not exceeding five hundred dollars per year, for the suppression of foul brood among bees in Wisconsin. Said inspector shall receive four dollars per day, and traveling expenses, for actual time served, which moneys shall not exceed the moneys hereby appropriated, to be paid by the State treasurer, upon warrants drawn and approved by the Governor.

SEC. 7.—This Act shall take effect and be in force from and after its passage and publication.

Approved April 1, 1897.

The Weekly Budget.

MR. W. C. LYMAN, of Dupage Co., Ill., writing us May 28, said: "Bees are doing well. First swarm May 10; another May 26. Good prospect for honey."

EDITOR HUTCHINSON AND WIFE (of the Bee-Keepers' Review), spent an afternoon recently with Dr. A. B. Mason and family at Toledo, Ohio. Of course it was an enjoyable visit all around.

MR. T. F. BINGHAM—the big bee-smoker man—writing us May 21, said:

"Bees are breeding up good, but the cool weather so far has cut of all the tree-bloom honey."

MR. JOHN CRAIG, of Macoupin Co., Ill., on May 27, sent us the first white clover blossoms we had seen this year. Shouldn't wonder if there'd be some white clover honey this year—something there hasn't been much of the past few years.

MR. A. E. SHERRINGTON, of Ontario, Canada, wrote May 17:

"This is a grand spring for the bees. Everything looks splendid."

MR. C. A. SUTHERLAND, one of our subscribers in Jamaica, W. I., reports that on April 22, while he was away in the interior looking after some business for a few days, on his return home he found his stores and honey-house entirely burnt out, with everything in connection with his apiary. This is a serious loss, indeed. We trust Mr. Sutherland may soon recover from it.

THE BUSY BEE, edited and publisht by Emerson Taylor Abbott, of Missouri, is on our desk. It is a continuation of The Nebraska Bee-Keeper, and will be issued monthly at 50 cents a year—"devoted to farm bee-keeping and other minor interests of progressive agriculture." Mrs. Emma Ingoldsby Abbott conducts the "Home Department." It is 6x9 inches in size, and contains 16 pages.

MR. A. M. RUNION, of Batson, S. C., writes us that about a month ago he had the misfortune to lose by fire his entire dwelling house and other smaller buildings, besides 28 colonies of bees out of 40, together with all fixtures and appliances. It was a total loss of some $1,500, as no insurance was carried. He advises bee-keepers "to keep their bees at a safe distance from might-be fires." Our advice to all is: Keep at least a little insurance on all your burnable property.

HON. EUGENE SECOR hasn't had much chance yet to show how well he can fill the position of General Manager of the New Union, but one prominent bee-keeper, in an eastern State, referring to his letter to the Postmaster General, in last week's Bee Journal, wrote us: "It is straightforward and businesslike, and I must say I feel pleased with his work so far." Mr. Secor is ready to do a lot of "pleasing," if bee-keepers will create a proper fund to fall back upon.

MESSRS. R. H. SCHMIDT & Co., of Wisconsin, when promptly remitting on their advertising account, May 28, wrote:

"Keep our advertisement standing until we tell you to stop. The American Bee Journal is 'the stuff.' It makes our factory *hum*."

There are quite a number of bee-supply dealers and manufacturers whose advertisements ought to be found in every number of the Bee Journal. But perhaps they don't care to have their business "hum," as do the above firm. The Bee Journal is ready to help any and every honest business man, through its advertising columns.

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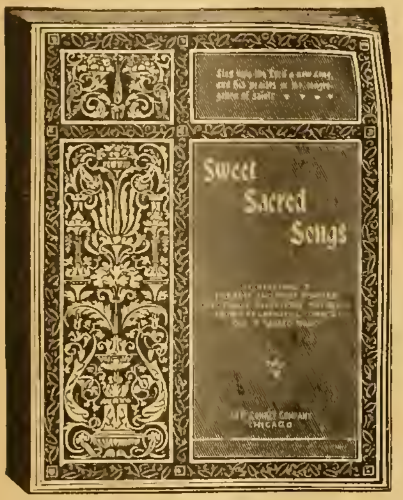

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What Others Say of It.

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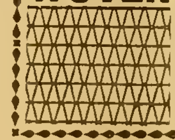

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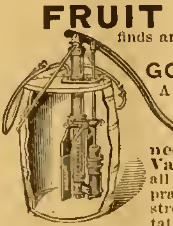

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In the multitude of counsellors there is safety.—Prov. 11-14.

Proper Size of Comb Foundation Starters for Sections.

Query 51.—What sized foundation starters should be used in the sections?—OHIO.

P. H. Elwood—Full size.

W. G. Larrabee—Full sheets.

A. F. Brown—I prefer full sheets.

E. France—Very nearly a full sheet.

Dr. J. P. H. Brown—I fill the sections 4/5 full.

Dr. C. C. Miller—I have always liked filling the sections as full as possible.

J. A. Green—Fill the sections full. A piece 3½ inches square is about right.

Prof. A. J. Cook—I like nearly full, reaching within half an inch of the bottom.

Rev. M. Mahin—Opinions differ. My personal preference is for narrow starters.

Mrs. L. Harrison—It depends upon the market; for the home market, ½ inch, or ⅝.

C. H. Dibbern—As large as the inside of the sections, except a ¼ inch space at the bottom.

H. D. Cutting—I have used all sizes and shapes, but prefer full sheets if the foundation is all right.

R. L. Taylor—I greatly prefer to fill the sections—*i. e.*, to fill as nearly as is safe, so the larger the starter, the better.

Jas. A. Stone—Before I would want to advise in this, I would want to know whether you wanted the honey for show or not.

G. M. Doolittle—From a V-shaped piece having 1½-inch length sides, to sections filled to within ¼ inch of the bottom, just as you can afford.

Dr. A. B. Mason—I would put a narrow strip of foundation at the bottom of the section, and then a full sheet reaching nearly to the strip at the bottom.

Emerson T. Abbott—If I were working for *quantity*, I would fill the sections with foundation; if for *quality* only, for home consumption, very small starters.

Eugene Secor—I like full sheets best. What I mean by that is, sheets lacking ¼ inch of touching sides and bottom. I seldom see first-class *looking* honey produced from starters or no starters.

J. E. Pond—For myself, I use foundation to fill the sections completely. Others use starters of various widths. It is to some extent a matter of opinion. Try various widths from an inch to a full section, and determine the matter for yourself.

J. M. Hambaugh—Some of our best honey-producers use just enough to insure a straight "start off." I believe it will pay to nearly or quite fill the section, provided you can safely secure it; and use "extra thin," of about 12 square feet to the pound.

G. W. Demaree—Cut the foundation into pieces 3½ inches square, then cut from corner to corner. This will give four V-shaped pieces to each square. The work can be done rapidly by cutting through a number at a time. This plan will give you nice V-shaped starters—the most *natural* thing for the bees.

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The Honey that Suits All Who Buy It.

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We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 7½ cents per pound; 2 cans in one case, 7 cents; 4 cans (2 cases) or more, 6½ cents. The Cash MUST accompany each order. **Fine Basswood** Flavor Honey at same price; also in 270-lb. barrels.

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They have also one **One of the Largest Factories** and the latest and most-improved machinery for the manufacture of

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Works Like a Charm.

The Monette Queen-Clipping Device WORKS LIKE A CHARM. With it I have clipped 30 queens, all in one day, when examining my bees. WM. STOLLEY, Grand Island, Nebr.

Couldn't Do Without It.

I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now.

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Every Bee-Keeper Ought to Have.
McCartney Fdn. Fastener & Sec. Press
TESTIMONIALS.

CHICAGO, ILL., May 3, 1897.
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Dear Sir:—Your Foundation Fastener and Section Press works to perfection. It not only cuts the foundation any desired length, but presses the same in such a manner to the section that it never can get loose. The work being very accurate, operation easy, and the price very moderate. I ordered another of your machines. No apiary running for comb honey should be without one.
Very truly yours, L. KREUTZINGER.

NORWOOD PARK, Ill., May 4, 1897.
MR. MCCARTNEY—
Dear Sir:—The machine I bought of you works like a charm, especially when I use top and bottom starters. It is so easy to operate it is a pleasure to work with it. I would not take double the price it cost, if I could not get another one. Yours truly,
W. B. BLUME.

PECATONICA, Ill., May 11, 1897.
G. R. MCCARTNEY, Rockford, Ill.
Dear Sir:—I like the machine very much. It surpasses my expectations, and I could not do without it. It is a dandy. Yours truly,
H. W. LEE.

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1215 South West St., ROCKFORD, ILL.
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If you contemplate buying either three or five band Italian Queens, simply write for my pamphlet. If you need some of the best now, send 75 cts. for one, $4.00 for six, or $7.50 per doz.—and full instructions for introducing, as well as the best methods known for securing good cells will be sent free.
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BEE-KEEPERS ! Let me send you my 64-page Catalog for 1897.
J. M. Jenkins, Wetumpka, Ala.
Mention the American Bee Journal.

General Items.

Swarming and Working.

I have had two swarms to date. Bees are working fine. CHAS. BECKER.

Sangamon Co., Ill., May 22.

◆

Honey Prospect Fine.

Bees here have been swarming for three weeks, and the prospect for honey is fine. W. A. FINLAY.

Pueblo Co., Colo., May 20.

◆

Bees in Fine Condition.

Bees are in fine condition. I have 30 colonies. The first swarm issued May 9, and I have had 5 since.

JAMES C. POLLOCK.

Greene Co., Pa., May 24.

◆

Plenty of White Clover.

This will be a good year for bees if the weather ever gets warm. My bees wintered well, losing only one colony out of 29. There is plenty of white clover this year. D. R. ROSEBROUGH.

Clark Co., Ill., May 24.

◆

Good Prospect for Fruit.

Bees are doing fine. The blackberry is in full bloom. I have never seen a better prospect for fruit than there is here. Some of my bees swarmed May 22, but the queen would not come out of the hive, so they all went back. I have persuaded the farmers to sow sweet clover, and try feeding it to the hogs. White clover is in bloom here.

JOHN CRAIG.

Macoupin Co., Ill., May 22.

◆

Another Entrance Feeder.

On page 289, a Mr. S. A. Deacon (probably meaning a South African Deacon) describes an entrance feeder that he uses, which seems to me to be rather fussy kind of a thing, but it may seem very simple to him. But let that be as it may, inasmuch as so many have given their plans of feeding, both inside and at the entrance of the hive, I wish to give a brief description of an entrance feeder that I have used for the last four years, which I think is a simple, easy and safe way of feeding.

Get a little tin dish, made say 8 inches long, 3½ wide, and 1½ inches deep; then take an empty cigar-box—take the lid and one side off—fill the dish as full as it can be handled without spilling, set it down on the bottom-board in front of the entrance, put a float on it for the bees to stand on, then put the cigar-box over the dish and press it in tight against the front of the hive. The bees can reach the dish only from the inside of the hive. It takes but a few seconds to fill the dish, set it down and cover it, and it doesn't disturb the bees in the least. This, of course, should be done in the evening, and it is well to go around the hives in the morning and lift the dishes and leave the entrance open. If the dishes are empty, set them upon the hive ready for the next feeding. But if not empty, take them to the bee-house and set them away until

A Good Start

for the seasons operations on the farm, and one which will yield the most satisfying returns is to thoroughly renovate and rejuvinate the system by the aid of that time tested and reliable remedy
Warner's Safe Cure
It quickly corrects that clayed condition of the liver so productive of Biliousness and Dyspepsia after the long winter of inactivity. In addition to the above good qualities it is a positive cure for
BRIGHT'S DISEASE
URINARY TROUBLES
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Beware of substitutes. There is nothing "just as good" as Warner's Safe Cure.
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Dovetailed Cedar Hives
Direct from the Factory. Guaranteed equal to the best goods on the market.
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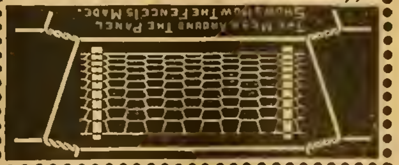
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THE MESH AROUND THE PANEL.

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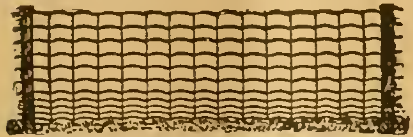

16 TO 1 AGAIN.

An Illinois farmer writes for an agency for our fence. Has had some in use several years and his next neighbor has a regular object lesson, having no less than **sixteen different** styles of wire fence on his farm After testing and comparing for years, he declares the Page leads them all.

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

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you want to use them again. If one is careful, he doesn't need to drop any syrup whatever.

The dishes may be made as large as the front of the hive will accommodate, and boxes made large enough to cover them. The outside of the box should rest on the outer edge of the bottom-board, so that no bees can get in from the outside. Others may have used this same kind of feeder. I do not know whether they have or not, but at any rate I claim no invention and no patent. It suits me because it is simple, easy and safe.

I use the portico hive described by Mr. Theilmann, some time ago, in the "Old Reliable." H. P. WILLSON.

Pembina Co., N. D., May 19.

* * *

Good Honey Season Lookt For.

My bees came through the winter in poor condition, but they are building up very fast now. Fruit-bloom was very good, and as we had pleasant weather the bees were not idle. I am looking for a good honey crop this year, as we have had plenty of rain this spring. White clover is just commencing to bloom now, and I hope it will yield well.

Success to the "Old Reliable."

F. N. BLACK.

Cooper Co., Mo., May 19.

* * *

Poor Season in 1896.

The past season bees did very poor. From 20 colonies, spring count, I got 125 pounds of section honey, about 100 pounds of extracted, and increase to 25 colonies, which I undertook to winter on the summer stands; I lost 10. I think the loss here will be about 50 per cent., but what are left have a bright prospect, if warm weather comes, as white and Alsike clover look better than for years. We hope that prosperity may strike them hard, and the farmer also.

W. RICKEL.

Koscinsko Co., Ind., May 24.

* * *

Spring Loss—Crimson Clover.

My bees came through the winter in most excellent condition, and did not dwindle in the spring. When the apple trees began to bloom they were strong enough to work in the supers, and we began to put supers on, but in two days I began to notice how few bees were flying, and upon examining the hives every one lookt as if they had cast a swarm, but only about enough bees were left to care for the brood, and in some hives it lookt as if the brood did not have enough left to feed the larvæ properly. I do not know of any one spraying fruit-trees in apple-blossom time, but it looks as if it was so. I know our neighbors do spray their fruit-trees, and for two years we have had an article put in our local paper, telling of the danger to bees of spraying in fruit-bloom, and of the uselessness of spraying them, and so took it for granted that everybody knew better than to do so.

We would call it spring dwindling if the bees had not been so strong up to the very day the apple-trees opened their blossoms. I was working with the bees right along every day, then clipping queens' wings, and noticed the almost sudden decrease of bees.

I wish we had a law making it a crime to spray in fruit-blooming time, as it will do but little good to simply tell

Beeswax Wanted for Cash
Or in Exchange for
Foundation—Sections—Hives or any Other Supplies.
Working Wax into Foundation for CASH A Specialty.
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An honest, efficient remedy for all Fevers, Headaches, Colds, Neuralgia, Grip, Rheumatism, etc. A general service remedy that'll please you, OR MONEY REFUNDED.
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"Too much cannot be said in praise of them."
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10 No. 1 E Dov. Hives, 8-frame..... $7.50
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Best Polisht Sections $2.50 per M.
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Let me make an estimate on your wants.
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Can do the work of four men using hand tools, in Ripping, Cutting-off, Mitring, Rabbeting, Grooving, Gaining, Dadoing, Edging-up, Jointing Stuff, etc. Full Line of Foot and Hand Power Machinery Sold on Trial. Catalogue Free.
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Untested, 50c.; Tested, $1.00.
Nuclei, 2 frame, $2.00, including a good Queen.
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For a limited time we wish to make our readers a **special offer** on booklets on Bees, Poultry, Health, etc. Upon receipt of **75 cents** we will mail any **6** of the list below: and for $1.25 we will mail the **whole dozen:**

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people not to do so. But if they had to pay for so doing, perhaps they would think of other people's rights.

Our scarlet clover is entirely winter-killed, so I guess we will have to give that up, as we have given it several trials, sowing in June, July, August and September, in the corn and by itself. It lookt very fine last fall, that which came up of itself after the crop went to seed the last spring. It seems to heave out by the roots in winter.

MRS. L. C. AXTELL.

Warren Co., Ill., May 21.

BEES FOR SALE.

We can supply Good Full Colonies of Italian Bees in 8-frame Langstroth hives. They are in Lee Co., Illinois, 100 miles from Chicago. If you wish to buy, write us at once, as to how many you want, and we will quote price.

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OR

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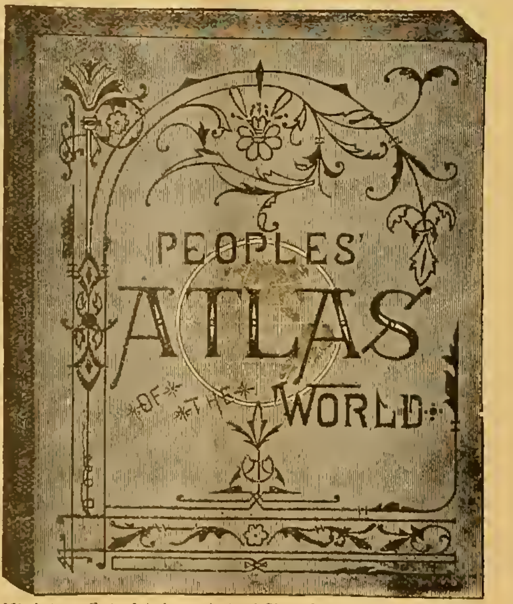

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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., May 6.—There is very little honey coming to the market, and fine lots of white comb brings 13c. Yet only a little is taken by the dealers, the season for it being over with the coming of strawberries, which are now plentiful. Extracted brings about late quotations, with beeswax in active demand at 27@28c. for best grades.

San Francisco, Calif., May 6. — White comb. 9-10c.; amber, 5-7c. Extracted, white, 5¼c.; light amber, 3¼-4c.; dark tule, 2¾c. Beeswax, fair to choice, 25-27c.

New York, N. Y., May 20.—Old crop is well cleaned up, both comb and extracted, and our market is in good shape for new crop, which is now beginning to arrive from the South. It is in fairly good demand at 50@52c. per gallon for average common grade, and 55 @60c. for better grades.

Beeswax is rather quiet at 26@27c.

Detroit, Mich., May 1.—Fancy white comb, 11@12c.; No. 1, 10@11c.; fancy amber, 9@10c.; No. 1, 8@9c.; dark, 7@8c. Extracted, white, 5@6c.; amber, 4@5c.; dark, 4c. Beeswax, 25@26c. Demand is slow for honey, and plenty in commission house.

Kansas City, Mo., May 20.—Fancy white, 12@13c.; No. 1, 11@12c.; fancy amber, 10@11c.; No. 1, 9@10c.; fancy dark, 8@9c.; No. 1, 8c. Extracted, white, 5@5½c.; amber, 4½@5c.; dark, 3½@4c. Beeswax, 25c.

Cincinnati, Ohio, May 7. — Demand is slow for all kinds of honey. Comb honey, 9@14c. for fair to choice white; extracted, 3½@6c. There is a fair demand for beeswax at 22@25c. for good to choice yellow.

Minneapolis, Minn., May 1. — Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Philadelphia, Pa., May 1.— Fancy white comb, 12-13c ; fancy amber, 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3½-4c. Beeswax, 25c.

Season is getting over for comb honey—very little demand. Extracted in good demand.

St. Louis, Mo., May 1.— Fancy comb, 12@ @13c.; No. 1 white, 11@11½c.; amber, 9@10½c.; dark, 7@8½c. Extracted, white, in cans, 6@7c.; amber, in barrels, 4@4½c; extra, 5c.; dark, 3@4c. Good demand for barrel stock—comb slow sale. Beeswax, 23@23½c. —prime finds ready sale at 23½c.

Albany, N. Y., May 1. — Fancy white, 12-13c.; No. 1, 11-12c.; fancy amber, 9-10c.; No. 1, 8-9c.; fancy dark, 7-8c.; No. 1, 6-7c. Extracted, white, 5-6c.; dark, 3½-4c.

Demand is all that could be expected at this season. Stock on hand small.

Indianapolis, Ind., May 1. — Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Buffalo, N. Y., May 28.—The honey season here is about wound up for the present. There are a few stray sales of fancy at 10 and 11 cents, while common is selling at any price, quotable at 9@4c. No extracted of consequence here.

Boston, Mass., May 1.— Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c..

Cleveland, Ohio, Feb. 20.—Fancy white, 14½@15c.; No. 1 white, 12½@13c. Extracted, white, 6@7c.; amber, 4½@5½c. Beeswax, 22 @25c.

There is not very much honey in our market. Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

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C. C. CLEMONS & Co., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
WILLIAMS BROS., 80 & 82 Broadway.

St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.
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Milwaukee, Wis.
A. V. BISHOP & Co.

Boston, Mass.
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M. H. HUNT, Bell Branch, Wayne Co., Mich.

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WALTER S. POUDER, 162 Massachusetts Ave

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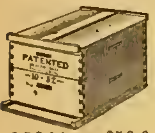

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37th Year. CHICAGO, ILL., JUNE 10, 1897. No. 23.

Contributed Articles

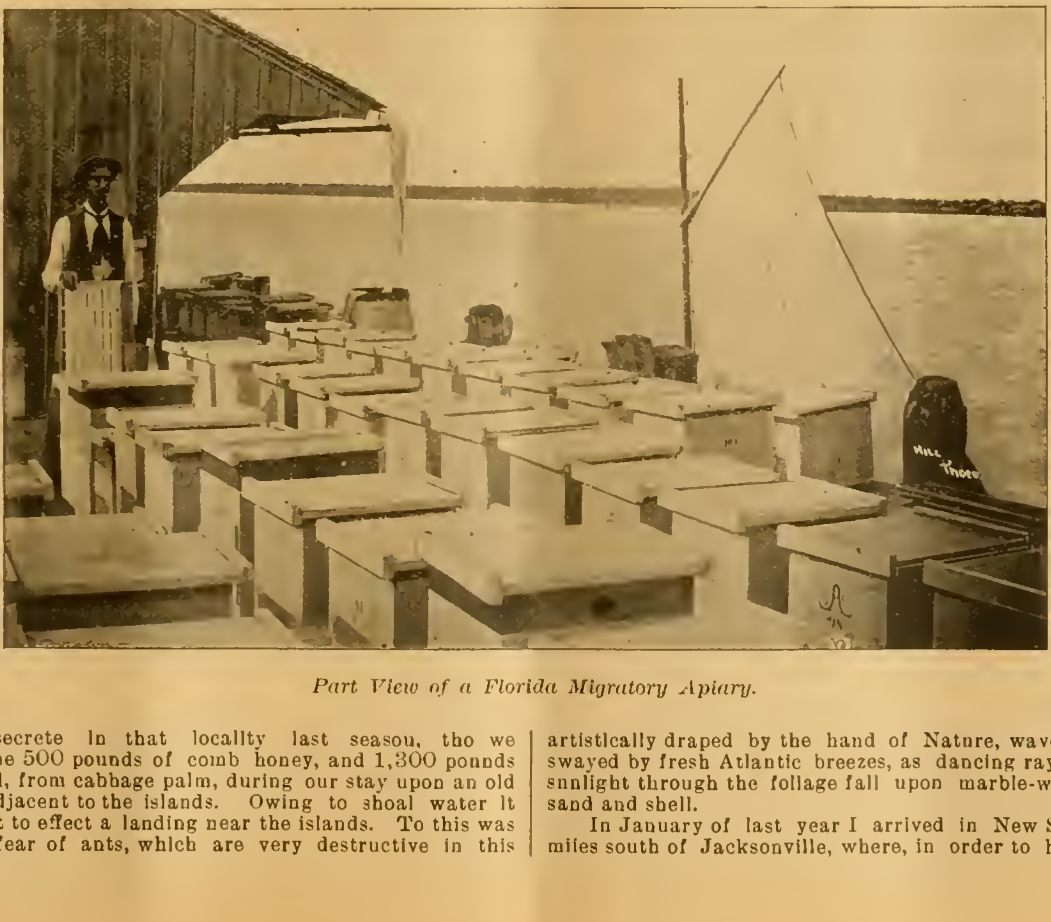
"THE LAND OF FLOWERS."

Bee-Keeping Thoughts, Observations and Experiences in South Florida.

BY H. E. HILL.

[Continued from page 338.]

Last summer we moved a small apiary to the Indian River Narrows mangrove region, about 50 miles from Spruce Bluff. As previously noted in these columns, the mangrove failed to secrete in that locality last season, tho we secured some 500 pounds of comb honey, and 1,300 pounds of extracted, from cabbage palm, during our stay upon an old bulkhead adjacent to the islands. Owing to shoal water it was difficult to effect a landing near the islands. To this was added the fear of ants, which are very destructive in this particular locality, and I decided to utilize an old, abandoned dock during my brief stay. A part view of this migratory apiary is herewith presented. Tho confined to such limited space, our only difficulty during six weeks' bee-keeping in the Indian river, arose from a general swarming-fever, which could be controlled only by a wholesale caging of queens within the hives.



Part View of a Florida Migratory Apiary.

Time and space at this time forbid relating at length many amusing circumstances incidental to the life of a migratory bee-keeper, in this most interesting country, some of which would rival Rambler's trip to Santa Catalina. We have no snow-capt mountains, burning deserts, gulches and precipitous canyons which echo the howl of coyotes, "where the lion roareth and the whangdoodle mourneth for his first born," but, tho oft repeated, the charms of Florida, when coming from a northern winter, are intensified by each successive experience; the ice and snow have vanisht, roses bloom by the wayside, and from amid the rustling leaves of stately palms feathered songsters of gaudy plumage send forth melodies as of gratitude for this glad rendezvous where winter blasts can never come. Mighty oaks, towering magnolias and sweet bay trees supporting massive festoons of Spanish moss, artistically draped by the hand of Nature, wave o'er head, swayed by fresh Atlantic breezes, as dancing rays of tropical sunlight through the foliage fall upon marble-white roads of sand and shell.

In January of last year I arrived in New Smyrna, 125 miles south of Jacksonville, where, in order to have my boat and camping outfit which was necessary to convey me beyond the railway and steamboat lines to my destination, the north fork of the St. Lucie river, I was obliged to continue my trip southward 160 miles in my open skiff boat. While busily overhauling the rigging preparatory to starting by the first fair wind and tide, and meditating upon the long and lonely trip before me in strange waters—firmly resolved to improve the first favorable weather—officiating as captain, cook and crew, tho even an apprenticeship before the mast is included in the long list of branches entirely neglected in my education—"Going for a sail?" came a familiar voice, and I readily recognized my interrogator and esteemed friend, Mr. Fred Whitaker, of Hawks Park, a steamboat engineer then temporarily off duty on account of an attack of rheumatism.

Upon acquainting my friend with my project, he immediately signified a desire to accompany me, saying he thought such a trip would be beneficial to his "rheumatiz." This proposition delighted me—I was to have a companion. I will not occupy space to elucidate my private thoughts regarding such a cure (?) for rheumatism, tho I exprest my faith in its efficacy, and perhaps cited a precedent or two just to avoid opposition to my friend.

That evening I requested my grocer to double my order, and to have the goods aboard by sunrise the following morning, as the indications were for fair weather (which prognostication proved equal to any forecast issued by Prof. Ira D. Hicks since he assumed charge of the weather), and we accordingly cast off on time, provided with water, provisions, guns, fishing tackle and ammunition sufficient for a small pirate ship; but, alas, we neglected to take on board a pilot, and the wending waterways, through thousands of mangrove islands, which for complex and delusive courses rival the catacombs of Rome, render travel extremely difficult to those unaccustomed to the locality. A succession of oyster-bars which traverse the entire length of the Hillsborough river, and are visible only at low tide, tend to increase the perils of navigation. After 15 miles of unnecessary travel, however, our first day out brought us safely through the Hillsborough across Mosquito lagoon, a sheet of water 6 by 20 miles in extent, and the Haulover canal, recently cut through by the East Coast Canal Company, connecting that body with the Indian river, afforded a safe harbor for the night.

As the sun sank from view we drew our little craft alongside an old shanty, probably the former abode of some lone fisherman. The camp-fire soon lent cheer to the scene as preparation was made for the evening repast, and the coffee-pot sang the old song that always recalls boyhood days in mother's kitchen. As the nocturnal shades closed upon us, flashes of lightning revealed the outline of dark clouds along the western horizon. Sunburned, tired and sleepy we spread our blankets upon the shanty floor, and, in the bony arms of Morpheus, all the cares and trials incidental to the struggle in providing diamonds for the city commission men temporarily fled; but, alas, we were soon, too soon, forsaken by the fickle god of dreams. In the midnight darkness I awoke beneath a veritable cataract. The howling wind, splashing waves, and rain beating through the open doorway; the heavy rumbling of the ocean surf breaking upon the beach, and roar of thunder added to the din and bewilderment of one thus rudely awakened. From a groveling object in the corner came an audible voice, which in accents not particularly "soft and low," discust the cruising cure for rheumatism. Sleep was impossible the remainder of the night, and the rough weather continued, making the outlook for progress very unpropitious.

After enduring the dampness of perpetual storm for 36 hours, and battling the waves for 10 more, we reacht Titusville, 10 miles distant across the Indian river, with our blankets in six inches of water in the boat, as were also all our other effects.

The next morning old Sol shone with all the radiant glory of a tropical sun from a cloudless sky, and all Nature seemed gladdened and revived by the invigorating rains and the bright sunshine which comes after storm. After a refreshing night's rest and breakfast at the hotel we proceeded on our journey southward, going ashore each night to camp upon the river banks; always having provided fish, duck or oysters during the day, to fry or roast over the camp-fire at night.

Our trip occupied seven days, and when we arrived at the apiary it was indeed a pleasant January scene; the bees whitening their combs and adding small bits of new comb wherever space permitted, which glistened with new honey from pennyroyal, upon which aromatic herb they were actively at work. Then, as often before and since, I soliloquized: Why do not more Northern people avail themselves of the advantages of Florida's genial climate and natural resources? Brevard Co., Fla.

Wintering—Other Notes and Comments.

BY EDWIN BEVINS.

One of the colonies, in an 8-frame dovetailed hive, which was so outrageously strong last fall that I felt sure the hive did not and could not hold enough honey to winter the bees, I wintered successfully in the following manner:

When the time came for putting on chaff cushions, instead of putting on a cushion, I put on a super filled with unfinisht sections of honey, and then packt over them. During the warm spell, late in January, I examined and found the honey had all gone somewhere, and refilled with 20 more unfinisht sections. The bees were left alone till May 3, when I found them just cleaning up the last of those 20 sections. The bees appeared to be about as numerous as they were last fall, and seemed to be so altogether prosperous, contented, and lazy, that I thought it would be a good plan to give them something to do. I did not like to see so much bee-power going to waste. I put over them another hive-body filled with frames of heavy foundation. It was a marvel how soon that foundation was converted into comb.

ANOTHER ENTRANCE FEEDER DESCRIBED.

I fed some at the entrance in the evening. My feeder is a home-made affair which costs nothing, and will last forever and a day. Mr. Deacon says his will last forever. May be it will if it does not get broken. Mine will not break. I don't know as many readers of the American Bee Journal may care to know how this feeder is made, but for fear some one may be out of money and want a feeder, I will tell how it is done:

Get a piece of pine plank 2 inches thick, 6 inches wide, and 8 or 10 inches long. Nail some thin boards all around the edges of this piece of plank, letting them be of a width to project above the plank so as to form the sides and ends of a trough with the plank for a bottom. Then nail two strips bee-space thick on the side of the feeder that is to be placed against the hive end, and then between the upper ends of these two strips cut a bee-space out of the upper edge of the thin board. Then get another piece of pine plank 2 inches thick, and a little wider and longer than the feeder, which use for a cover. I smear the inside of these feeders with melted beeswax and rosin.

By varying the width of the thin boards forming the sides and ends of these feeders, they can be made of any desired capacity.

Put a piece of cheese-cloth on the feed, and no bees get drowned. I was simple enough one time to buy a Simplicity feeder, but that is too much of a toy affair for me, as was also one of Root's old, original dovetailed winter-cases. I have one of each standing around with nothing in the world to do.

HIVE-MAKING—VARIOUS SIZES.

I am congratulating myself just now that I am about to put the finishing touches to my hundredth hive. I do not mean to say that a hundred is all the hives I have, but I mean to say that I have *made* a hundred. This is nothing to boast of, but then I am tolerably well pleased over the fact that I have made them. My hives are not all made after a single pattern. Some of them are what are called "Dadant hives." The rest all have bodies 20 inches long, outside measure. I shall never vary from this length if I make a thousand hives. Most of my hives take 8 frames, but a good many are made to take 10 frames. Some 8-frame hives are 12 inches deep, but most of them take frames of standard depth. Some 10-frame hives take frames of same depth, but most of them have bodies 12 inches deep. These last-mentioned have telescope covers. Then I have made a few hives with bodies 7⅝ inches deep, the same length and width as the dovetailed hive. I shall put starters in the frames of these and use them to hive swarms on this season. The brood-chamber is contracted without the use of dummies. After the white honey-flow is over I shall put on hive-bodies of the same size, filled with frames of foundation, and let the bees build up; or, if necessary, I will feed up for winter. Next season I will manage these double hives as Dr. Tinker manages his. May be these experiments will pay, and may be not. I am willing to incur the expense for the sake of the knowledge.

NECESSARY TO FEED SOME COLONIES.

The spring has been an uncommonly poor one for early brood-rearing, and an uncommonly good one for making it necessary to feed—wet and cold most of the time. If it is not too late I would like to say to bee-keepers, get a move on, and see if some colony does not need to be fed right away. One warm day, not long ago, when bees were bringing in pollen at a lively rate, I found one strong colony that had suspended work of this sort. The frames were lifted, but there was not a particle of honey or brood in them. Some feed has been given occasionally since, and now the work of gathering pollen goes merrily on.

HIVE CLAMPS AND RABBETS.

I omitted to say in the proper place that I buy all of my frames in the flat, and that I use metal rabbets and Van Deusen clamps for nearly all of my hives. I tried hive hooks, but prefer the clamps. I have almost come to consider the clamps and rabbets as indispensable parts of a hive.

PREVENTING SWARMING—PACKING COLONIES.

Some of those colonies in 8-frame dovetailed hives which were so immensely strong last fall, seem to be equally strong this spring. Since the advent of fruit-bloom some of the bees in some of these hives have had to camp out on the alighting-board over night. As I did not want any swarms to feed a month before the flow, I put on hive-bodies filled with frames of heavy foundation. Here is when and where I feel sure that the use of heavy foundation will pay. Not many swarms would be likely to issue anyhow, and in the meantime there would of necessity be an immense number of idle bees in the hive if not given the additional room.

Some readers will perhaps remember that I told them that I wintered a few colonies in big hives without any packing of straw around the hives. These hives were mostly double-boarded on the north and west, and I left them unpackt in order to compare results in wintering with bees in hives of 8-frame dovetailed size packt as I usually pack them. The big, unpackt hives were all very low in stores at the advent of fruit-bloom, and one was entirely destitute. The well-packt colonies in the small hives have not had to be fed yet, but some of them may if this cool weather continues much longer. I shall pack everything after this.

It is satisfying in such a season as this to note the condition of the bees in the 8 and 10 frame hives having bodies 12 inches deep, and also in the 10-frame hives of standard depth. These hives were all well packt, and the bees have required no looking after, and will need none till it is time to put on sections.

Some writers on apiarian subjects claim that a 10-frame hive is no better for wintering bees than an 8-frame hive, because, they say, the bees in a long, cold spell cannot move about to get the honey in the outside combs, and may starve with honey in the hive. This may be partially or wholly true in colder climates, and unpackt hives, but it is not true here—at least not true with me. I have lookt into some of my packt hives in quite cold weather, and never found the bees very closely clustered. Generally they were pretty well distributed between all frames. Sometimes I may conclude to protect the fronts of my hives with a packing of chaff. If I do, it will be by means of some device that can be easily removed when the coldest of the weather is over.

GETTING BEES INTO THE SECTIONS.

I read much about the trouble some folks have to get the bees to work in the sections. I have never had any trouble of this kind. I have had more trouble to get the bees out of the sections than I have had to get them in. Colonies are generally so strong that the bees are glad to get somewhere in a hot day, and they will not hang outside if you give them room above, and plenty of air.

A man about 10 miles away told me that he got no surplus from 10 or a dozen colonies in box and log hives last season. His surplus receptacles were air-tight boxes placed on top of the hives, and the communication was one inch, or less than an inch, auger hole through the cover of the hive. See? Those bees had good sense. Who would work for such a man?

Allow me to return to the subject of wintering bees in hives of different capacities. I would not be deterred from keeping bees in 8-frame standard hives because of the increast difficulty of wintering, over the trouble of wintering in hives that take deeper frames, or more of them. The trouble of wintering in this hive need not be great. The conditions for successful wintering in almost any kind of hive are few and obvious. Given a queen, warmth, dryness, air and a plenty of honey, or some good substitute, when and where it is needed, and your hives ought not to be without living tenants in the spring. Sealed covers are foes to dryness.

I believe that the 8-frame hive with frames of standard length and depth will always be largely used—perhaps more largely than any other, and yet I could not be persuaded to confine myself wholly to that size of hive. Variety is the spice of life, and there are some things I want to find out.

In reply to the question of Mr. Young (page 228), I will say that at the time of my visit to Omaha I did not know that any such person existed. I am glad to know him now, through the reading of his "notes and comments," which I hope are "to be continued." I am waiting with some impatience for him to tell us about that hive foundation. When I go to Omaha again I shall consider myself invited to Mr. Young's, and shall make that journey of 22 miles to see him. I will notify him before hand of my coming, and then if he is not at home, it is not likely that I will call again.

Doolittle's old man is out in the same old garb, telling the same old yarn, in the same old bland, persuasive way.

Decatur Co., Iowa, May 17.

How to Avoid being Stung so Much.

Question.—Why do bees sting some people more than others? Some tell me they can hive a swarm of bees, take away honey, transfer, or do any other thing necessary, and never use a veil or gloves, and never get stung. Now, I get stung every time I work with them, even with good veil and gloves on. This morning I lookt into a hive having a new swarm in it, and I received six stings before I could quietly replace the cover. Is there any way to avoid stings? I am not afraid of the bees, and like to work with them; but I should prefer not to get stung every time I go near them.

P. D. Wine.

Answer.—I know there is a sort of current impression, to the effect that bees will sting some people more than others. While this is true, it is not because they are able to recognize any peculiar physical condition or difference, nor is it because one person smells to the bees differently from another. It is because they notice a difference in behavior in different persons. For instance, Mr. A made a close study of the habits of bees, and particularly of the causes that induce them to sting. He recognizes that quick motions, under some circumstances, are quite liable to arouse the bees and make them sting very badly. There are certain things he can do with impunity, and others he can not; or perhaps, we had better put it this way: He can do anything with bees he desires; but if he works in a certain peculiar way he will get stung badly; but if his motions are regulated to their whims, he will get along with few or perhaps no stings.

Another man, Mr. B, is not afraid of bees, and does not care much whether he is stung or not. Perhaps he thinks a veil useless, and does not wear one; or may be he rips the cover off with a yank. He is clumsy in his motions. One bee stings him. He draws his hand back quickly, and receives half a dozen more. He does not know the importance of doing all things decently and in order. Smoker? Oh yes, he has one; but he uses it at the wrong time, and does not keep it on hand ready to quell any disturbance that is likely to arise.

Mr. A, on the contrary, observes that bees are crosser on some days than on some others; but if he must handle them on an "off day" (a cool day after a rain; a day when the bees have been robbing, or a day following a sudden stoppage of the honey-flow) he will first make sure that his smoker is in good order, and ready to give off a good volume of smoke. He will blow a little of it in at the entrance, and then pry the cover up a little very gently. As he does so he will send a stream of smoke into the crack made by the putty-knife or screw-driver. This drives down the guards, and then the crack is made a little wider, and more smoke is then driven in, when the cover is removed. If the bees show a quick, nervous movement, standing up high on their legs, bobbing their bodies quickly one way and then the other, he gives them a few more light whiffs of smoke until they are subdued. With a screw-driver he loosens the frames, holding the smoker in his hand. Just as soon as the bees stick their heads up, ready to show fight, he drives them back again, and then very cautiously and deliberately removes the first frame. His movements from now on are very deliberate; and occasionally when the bees are a little obstreperous he gives them another whiff of smoke. Only a very little is required—just sufficient to let them know that he is master, and that they must let him entirely alone.

Last spring I workt with the bees nearly a week before I received a single sting, and yet one of the boys who workt near me at the time, doing the same work, was stung anywhere from three to five times a day. Perhaps some may feel that these slow movements waste a good deal of time; but I find that I can really do more work in a day by closely and carefully watching any disposition on the part of the bees to resent my intrusion. Right here rests the whole secret. To one who is accustomed to handling bees there is a certain indescribable action on their part that shows when they are ready to sting. A little smoke at the *right time* takes the "fight" all out of them.

I do not think it is good policy for one who handles bees very much to get stung a great many times, and one should be careful to avoid every sting as much as possible. In the summer, when the bees are working in the fields, one or two stings perhaps in the whole month would be all that I should get, *providing* there were nothing but Italians from imported stock, or of that persuasion; and how I avoid the stings is simply by following the plan laid down by Mr. A.

In this connection it might be well to state that one who makes a business of keeping bees is liable in years to come to experience some bad effects from too much of the apis-mellifica poison being injected into his system. The Rev. L. L. Langstroth, James Heddon, and others in later years experienced some inconvenience from what they ascribed to the presence of too much bee-sting poison in the system.

In regard to dispensing with a veil—yes, this can be done, but it dosen't pay. I have seen some of these same chaps boast of how they did not need any face protection; yet I have seen them waste valuable time in stopping to put the hands up to the face, or plunge the head in a clump of bushes in ignoble retreat.—E. R. Root, in Gleanings.

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Real Cause of Foul Brood Among Bees.

BY WM. M'EVOY.

Official Foul Brood Inspector for Ontario, Canada.

I have discovered the real cause of foul brood, and *from experimental testing of my own* I discovered the simplest and most practical way, with the least work, of curing that disease; and I have had more experience with foul brood than any other man on earth.

I will now give you evidence that would count in any court of law, and that any judge on the bench would accept, and charge a jury to believe, as they are solid facts.

One fine day in April, 1875, when my bees were flying freely, the bees of one colony all came out, and about two-thirds of them got into another before I got the hive closed. I then took the remaining third of the bees and the queen, and returned them to their own hive.

Then about sundown, when the bees had settled for the day, I examined the colony that swarmed out and lost two-thirds of its bees, I found plenty of honey, a nice lot of brood in all stages, but *too small a cluster of bees to cover or care for the amount of brood.* That colony having lost the most of its bees, the uncared-for brood died and rotted in the cells. Then by the middle of June that colony had developt into a genuine case of pure foul brood, which gave me many a day's very bitter experience before I got rid of it.

In the summer of 1882, Mr. C. J. Robinson, of Richfield, N. Y., originated foul brood in his own apiary, by forcing brood to consume their food mixt with rotten larvæ. Mr. Robinson had some combs with brood in that were taken out of the hives at extracting time, and were not returned to the hives, through mistake. The weather being warm at the time, and the combs of brood being piled on top of each other in a building, the brood heated and soon became very rotten. Mr. Robinson then went to a colony of bees, took out a comb of brood, brusht the bees off, and then put the matter from the rotten combs into the cells that had brood in, and to force the brood to consume it he put a screen on each side of the comb, and then put it back into the hive of bees again. The comb of brood was kept warm by the heat of the colony, and the screen kept the bees from feeding the brood. Then the larvæ was forced to consume the rotten matter, and then it became foul brood.

In 1888, the Rev. Mr. Gruetzner, of New Dundee, Ont., had foul brood originate in his apiary. In a letter I received from him, Mr. Gruetzner says:

"In the spring I placed entirely healthy combs of brood from other colonies into a weak but healthy colony; very soon the young died, intense heat set in, and the whole colony became full of foul brood. In Germany the opinion seems to be universal that diseased brood is the cause of foul brood."

In June, 1889, Mr. Wm. Burkholder, of Otterville, Ont., had foul brood originate in his apiary, from starved brood. Mr. Burkholder had a very strong colony of well-bred Italians, which consumed all their honey just a little before the honey season opened, and which he found in a dying state one morning. He fed them at once, and the majority of the bees came out all right again. All the brood in the colony had died at that time from starvation, and rotted in the combs. Then warm weather set in, and the whole colony became full of pure foul brood.

In June, 1890, Mr. Charles Urlocker, of Thorold, Ont., had 30 colonies of bees turned into foul brood from drowned brood. In June, 1890, Mr. Urlocker had 40 good colonies with a top story on each hive, and a queen-excluder on every brood-chamber. Just then a sudden storm started up, and a big cloud bursted over Thorold, and for a time caused a terrible flood. Mr. Urlocker's apiary was in low land, the water rose very rapidly, and soon 10 brood-chambers were under water, and as the queens could not get up through the queen-excluders, they were drowned, as well as the brood. The water did not get quite up to the tops of the brood-chambers of the other 30 colonies, so the queens did not drown in them. The bees in nearly all went up into the top stories at the time. These colonies were very strong, and some had swarmed before that, and were full of brood when the flood overflowed the apiary. The water soon went down, extreme heat set in, and the brood-chambers full of drowned brood went into a great mass of corruption, and turned Mr. Urlocker's apiary into foul brood with a vengeance. In the Foul Brood Bulletin, page 14, Mr. D. A. Jones, of Beeton, Ont., says:

"A man once had a hundred colonies in an isolated locality, with no other apiary within miles of it, and no bees in the woods, as far as known; there were no signs of foul brood in his apiary all summer, tho the colonies were carefully examined once or twice each week. In August or September, a flood came and drowned a large portion of the brood in some of the hives; 10 or 15 of them were so much injured by the flood that the bees did not remove the dead brood, and in most of these colonies nearly all the combs were full of brood. The weather, after the flood, was very warm and muggy, the atmosphere very oppressive for days, with frequent showers. All the colonies from which the dead brood were removed came out all right, while the 10 or 15 from which it was not removed became very badly diseased; they attempted to rear brood, but some of it was affected, so much so that the odor arising from the brood dying was very unpleasant. When all the dead brood was removed, the disease continued, and it appeared that the spores of the disease were in the honey, as many of the larvæ were found dead. Each time brood was reared the disease continued to increase, in spite of salicylic acid and other treatments then in vogue. Honey from the combs when given to a healthy colony produced the disease. It appeared in every respect like foul brood, and I feel satisfied that it was. Now, if it did not emanate from the decaying brood, which was a mass of corruption, where *did* it come from?"

Mr. John F. Gates, of Ovid, Erie Co., Pa., U. S., had foul brood originate in his apiary from his bees dwindling so badly one very backward spring that the bees could not cover or care for and keep warm the brood they had started during the early warm spell. When weather came in earnest, Mr. Gates examined his colonies and discovered that the rotting of the uncared-for brood had developt into foul brood.

Foul brood is a disease that is caused by the rotting of uncared-for brood. It usually originates in spring in weak colonies that have spring-dwindled so badly that they have not bees enough left to cover or care for all the brood, and if the spring keeps raw and backward the bees will crowd together to keep each other warm, leaving the uncared-for brood to die and rot in the cells. The brood covered by the bees in time hatches, which so increases the force of the colony that a wider circle of comb is covered by the bees taking in the space occupied by the decaying brood. Then the brood that is fed in these cells where brood lately rotted down, will have to consume their food mixt with the remains of decayed brood, and that is the *whole, sole, real and only cause* of foul brood.

In the bee-yards of beginners, over-workt farmers, and business men (whose time was fully occupied in other things) is where I found many a foul brood nursery. When brood has rotted and advanced to the brown-rotton-matter stage it is then a very dangerous thing, and if a large quantity of that is put in a weak colony *it will start foul brood at once.* The so-called scientists have done a terrible lot of damage by saying that the rotting or uncared-for brood could not cause foul brood; that sort of teaching has caused bee-keepers to be very careless, and when foul brood has broken out in their apiaries, it makes rapid headway because the owners did not take proper care of their colonies, but depended too much upon the so-called scientists who are not practical bee-keepers.

In the summer of 1890, Mr. John F. Gates wrote up the cause of foul brood, and had it publisht in the Canadian Bee Journal. When I read it I was greatly pleased to see that Mr. Gates had discovered in his own apiary that foul brood was caused by the rotting of uncared-for brood. I wrote Mr. Gates a letter at the time, thanking him very much for his valuable article on the cause of foul brood. He is just right on both the cause and cure of foul brood, and it will be a good thing for all bee-keepers, that have foul brood in their bee-yards, if they will follow his instructions how to cure that disease, and let the professional guessers alone until they find out.

In the fall of 1890, I was very much pleased with an article that Mr. Robinson, of Richfield, N. Y., had publisht in the American Bee Journal, on the cause of foul brood, and as that was a real test case of his, proving that foul brood was caused by the rotting of uncared-for brood, I prized his article very much, as that was in the same line of my discovery. I wrote Mr. Robinson at the time I read his article, and also thankt him for it.

Some bee-keepers believe that the empty hives that had foul brood in, will cause foul brood if not boiled, scalded, or disinfected, which is the greatest of nonsense. An empty hive never, no never, gave the disease, and never will. I always tell the owners not to waste their time in disinfecting or doing anything with the old hive, but cure the disease right in the same hive, which they always do.

Some think that the queens in very badly diseased colonies will cause foul brood, which I know is anything but a fact. I often have to put two, three, and sometimes four weak colonies into one, that have been so used up from foul brood, in order to get a fair colony to make it pay to cure them of foul brood. In such cases, if the queens suit me, I get them for nothing, and bring them home and do away with some poor queens, putting these queens from the foul colonies into my own. I have proved it in every possible way, and I know for a fact that the queens never did cause foul brood.

Comb foundation has been blamed for helping to spread foul brood, which is not a fact. I defy any man to cause foul brood from foundation made from wax rendered out of the *worst of foul broody combs*. The disease is spread by the bees robbing foul broody colonies, and they carry the disease just in proportion to the amount of the diseased honey they convey to their own hives.

In my next article I will give all my methods for curing foul brood. I don't use any drugs, nor starve any bees at any time, and any man can cure the worst cases of foul brood by my methods, from May to November. Ontario, Canada.

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Importance of Having Good Queens.

BY J. W. ROUSE.

I wonder if even one-half of the bee-keepers realize the importance of good queens, as upon the queen more than any other one thing depends a successful crop of honey. I have never seen a season in my bee-keeping experience but what some colonies could at least make a living, but I have seen some colonies that made a poor living even in a fair season. As bees do not make honey, but gather it, of course they can do nothing when there is nothing to do on or with. If the queen is a good breeder, that does her work at the right time, in the right way, her bees are most sure to get something.

It is hard to convince some that there is as much difference in queen-bees as there is in milch-cows, or any other kind of stock. While some cows are good milkers, others are not worth keeping. So it is with queen-bees. Some colonies are kept from year to year, and nothing is ever obtained from them. When the old queen gives out, another is reared by the bees from her stock, and so this worthless breed is continued.

Remedy—Replace these worthless queens with good ones that will produce bees in quantities sufficient, and with energy enough to get a hustle on themselves.

If queens are to be bought, this is often neglected on account of the expense, but as has been said before, "If one does not wish to go to any expense, he had better let the bees alone." I do not know of any business that will bring in as good returns for the time and money as do bees if given the right attention. I have never failed to get some honey since keeping bees, except one season—that of 1894. That year by drawing on my best colonies, I kept some others from starving, which proved to me that it does not pay to keep a poor queen. Better let them starve rather than to keep them on that way. But by weeding out poor queens, the bee-keeper can very materially help his honey crop.

Again, many let their bees rear a large lot of useless drones that consume the stores the workers do get. This can be avoided by taking out all drone-comb from the brood-nest and replacing it with foundation or other worker-comb. This is another expense, but one that pays well for the investment.

By careful watching and proper manipulations one can have the bees build extra combs, by building a few at a time, but if one can stand the expense at the time, it is cheapest to have combs drawn from full sheets of foundation. This insures straight combs and all worker-cells, besides saving much honey building the combs.—Progressive Bee-Keeper.

CONVENTION PROCEEDINGS

Report of the North American Convention Held at St. Joseph, Mo., Oct. 10-12, 1894.

REPORTED BY LOUIS R. LIGHTON.

[Continued from page 342.]

WHAT SHALL WE PLANT FOR HONEY?

Silver Berry (*Elæagnus argentea*) is quite a favorite with the bees. The plant grows wild from Minnesota to Montana and Utah, and has been introduced elsewhere for ornament and for its edible, berry-like fruit. A short account of it can be found on page 215 of the American Bee Journal for Aug. 16, 1894, under the name "Wild Olive."

The Japanese Silver Berry (*Elæagnus longipes*) introduced by nurserymen is probably preferable to the native wild species. It produces a profusion of beautiful yellowish-white blossoms in May, and hangs full of bright scarlet acid berries, which like those of the native species may be used as cranberries. The Japanese species is a shrub five to six feet high, which bears when but two years old.

The Buffalo Berry (*Shepherdia argentea*) grows wild from North Minnesota to Colorado and westward, attaining a height of 5 to 18 feet. Is is closely related to Elæagnus, but while the latter has perfect flowers, four stamens, and alternate leaves, silvery below, the Shepherdia or Buffalo Berry has diœcious flowers, eight stamens, and opposite leaves, silvery both sides, and the tree is somewhat spiny. The fruit is also glossier, bright scarlet and even more abundant. It is acid and can be used like the Silver Berries, but if left to be toucht by frost if becomes very pleasant and can be used as a mid-winter dessert fruit. The Rural New Yorker says of it: "Unquestionably the Shepherdia is well worthy of cultivation for its fruit alone, which is superior to Elæagnus." I have not been able to observe whether this plant is visited by the bees or not and so ought really to place it in the list for experiment, but from the fact that it is closely related to the silver berries I am quite sure it will prove of value to the bee-keeper and on account of its great beauty it can be used to replace non-productive ornamental shrubs, or may form a part of the fruit orchard.

The perennial clovers, White, Alsike and Red, with related plants such as Alfalfa or Lucern (*Medicago sativa*), and Sainfoin or Esparcette (*Onobrychis sativa*) are great honey producers. I need say little about most of these, for all are familiar with them. I do not think, however, that Alsike clover (*Trifolium hybridum*) has received the attention it ought to have, either from bee-keepers or farmers. It thrives best on moist rich land and in a cool climate, but with care in getting a good stand, sowing it with timothy and red clover it may be grown on a great variety of soils in the North, and sown with redtop in the South, it will do well where the latter thrives. From the second crop of Red Clover (*Trifolium pratense*) Italian and Carniolan bees sometimes gather honey, but this source cannot be depended upon.

Sainfoin or Esparcette (*Onobrychis sativa*) is a leguminous plant largely cultivated in Europe for forage and hay. It is raised to a limited extent in our Southern States, but is worthy I believe, of much more extended cultivation, altho it is not altogether hardy at the North. It has yielded a light crop as far north as Massachusetts, but it is liable to winter-kill considerably there. In the milder portions of the Atlantic States, and south of the Ohio, westward to the Pacific, it surely ought to succeed on light, dry soils which contain lime. It is a most excellent honey-producer and the honey is of fine quality—clear, thick, and pleasant-flavored. I shall sow some sainfoin in Maryland the coming spring and would be glad to see it tried in other parts of the country.

The Flat Pea or Vetchling (*Lathyrus sylvestris*) is a new leguminous plant which has come to us from Germany. It is one of the most remarkable renovators of the soil known, and the European journals of apiculture speak highly of it as a honey-producer. Its roots go even deeper into the soil than those of alfalfa, hence when once establisht it may be depended upon to withstand the greatest drouths. It will also last for many years and withstand the severest freezing.

I expected to hear Mr. Terry, in his remarks to you about clovers, explain the manner, as near as this has been determined, in which these leguminous plants renovate the soil. Since some understanding of this may be of use to bee-keepers who are trying to raise some of these crops, I will state as briefly as possible the view generally accepted. It it as follows:

The roots of many leguminous plants not only go deep into the soil and bring the soluble salts to the surface where they are more available for other crops, but these plants also possess the power of taking quantities of free nitrogen from the air and fixing it as a part of their own substance. The manner in which they do this has been the subject of careful investigation in Germany, and it has been shown that the bulbous swellings, known as tubercles, on the roots of such plants are connected with the acquisition of nitrogen by these plants, and further that these tubercles are formed through the action of certain bacteria living in the soil. Moreover, it is probable that there are various species of bacteria peculiar to the different leguminous plants, as it has been found, in practice, that some clovers, as well as other Leguminosæ, put for the first time on a given piece of land do not always succeed at first, even tho the land be good and the climate apparently favorable. But after the application of a light dressing—a mere sprinkling of surface soil taken from a field on which this particular crop had been successfully grown, and which, therefore, contained the bacteria peculiar to this plant—the latter was found to thrive in its new location. Also in some cases the bacteria, too few in number, multiply with continuous effort to raise the given crop, until at last success with it is possible. I mention this matter lest some, in trials of these crops for forage and as honey-plants, should conclude too hastily that a given one would not succeed in their location. It is also a very striking illustration of how a cause so entirely beyond the reach of the ordinary observer, may materially affect a certain practical result and lead to very erroneous conclusions. In our own special pursuit no doubt similar cases frequently occur.

The Carob (*Ceratonia siliqua*). whose long pods are sometimes called "St. John's Bread," is a luguminous tree growing in most Mediterranean countries whence its fruits are an important acticle of export. In Tunis, Italy, Syria, and Cyprus I found it yielding quite a little honey. It is a fine shade and ornamental tree besides yielding quantities of fruits which furnish very nourishing food for stock. Moreover, it grows on very rocky, sterile lands where no rain falls from April to November. It is worthy of extensive cultivation in the Southwest.

Asparagus (*Asparagus officinalis*) when left to go to seed blossoms during mid-summer and is visited by bees.

The European Chestnut (*Castanea castanea L.*) and the American (*C. dentata Marsh.*) and Japanese (*C. japonica DC.*) varieties are eagerly visited by the bees for honey and pollen in May or June, according to the latitude. The Japanese, being dwarf, bears early, even when but two to three years old, producing also very large nuts. The European variety (also known as Italian or Spanish chestnut) is said to do best in the Southwest.

Chinquapin (*Castanea pumila*) is the only other representative we have in the chestnut genus. It is a shrub-like tree which yields honey and pollen, as well as very sweet edible nuts about half the size of chestnuts. The nuts are salable, and the tree might be planted as a hedge or windbreak. It grows nearly everywhere in the South, but would doubtless prove hardy in the North also. I understand the Michigan Experiment Station has planted some. The objectionable feature it has, so far as I know—it is abundant near my apiary—is that it suckers immoderately from the central stool, but can be easily confined to this and is easily exterminated by removing the crown.

The Filbert or European Hazelnut (*Corylus avellana*) can be profitably grown wherever our wild hazelnut grows. Since they afford much early pollen for our bees I am glad to note that they are being planted by our horticulturists.

Chicory (*Chicorium intybus*) will grow readily in the United States. The root is dried and used as coffee or mixt with coffee. It is largely grown in Europe, being in Belgium a leading product. Five years ago that country sent about $11,000 worth to America, while last year it sent us some $130,000 worth, or more than ten times as much, and our annual importations of this product from all countries exceed one-third of a million dollars in value. European physicians recommend its use instead of coffee or mixt with coffee by those who have stomach troubles or whose nerves do not permit the use of coffee alone. Many prefer the taste of the beverage made from this mixture to that prepared from coffee alone. Since there is an increasing demand for this product, and the chicory plant is a good honey-producer, remaining in bloom during a good part of July and August, a handsome plant with its bright blue and abundant flowers, and stands drouth well, bee-keepers should be the ones to take advantage of the market and raise it.

(Continued next week.)

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Uniting Weak Colonies.

What is the most satisfactory way to double up two weak colonies and make one strong colony? They are very weak, and one colony alone will not fill a tea-cup, but I think by doubling them I can make one strong colony.

I have just started, and have 16 colonies. I am deriving much good from the American Bee Journal.

LOUISIANA.

ANSWER.—At this time of year when bees are busy gathering there is no trouble whatever about uniting—just unite. Set one hive over the other and let them unite at their leisure, or lift frames and bees out of one hive and put into the other. If you have a preference as to queens, kill the poorer one a day or so before uniting. There will be less trouble about the bees going back to the old location if the bees that are to be moved have their queen killed a day or two before moving.

Bee-Keeping as a Business.

1. I am seriously thinking of selecting bee-culture as my pursuit in the near future. This is, however, not definitely settled, depending, among other things, upon my experience this summer, and your advice. I never paid any attention to bees until last summer, so I am altogether at a loss to select a suitable place—the first requisite for successful bee-culture. On the selecting of a location I would like more light. I therefore would like the benefit of your experience in selecting a location where bee-culture may successfully be practiced. I suppose California would be an ideal place, but I understand that competition is very sharp, and the market the poorest in the United States. I really have a preference for northwest Arkansas, but I do not know whether the flora there furnishes sufficient nectar. Some strawberries are raised there, and great apple-orchards are abundant—that is the end of my knowledge.

2. If one devotes himself entirely to bee-culture, with a capital of from $500 to $1,000, how should he invest it?

3. Should he depend upon the sale of honey and wax alone for his income?

4. Would it pay to have queen-rearing in connection with it?

5. What race is mostly in demand, and what is approximately the price at the different seasons for a tested queen of select breeding? Of course it differs materially whether I can sell 8 or 10 or 50 to 100 in one season.

6. What else might one do to make it pay? I do not mean to acquire wealth, but would expect pleasure and a comfortable living.

GERMANY.

ANSWERS.—1. To advise as to location is so difficult as to be fairly clast as impossible. What is best for one may not be best for another. There are some locations where the bee-keeper is practically shut out from all the world, and while one might endure it, another would rather saw wood for a living and be where he could see folks. Then there is the matter of health to be considered, and all locations are not equally healthy.

Rapid adjustments are all the time taking place, a specially favored locality being speedily filled with bee-keepers enough to supply it, if not to overstock it. The ideal place would be one where nectar-bearing plants were abundant and continuous, a place where bee-keepers were still so scarce that much land remained to be possest. It is self-evident that I don't know of such a place, for if I knew of it some one else would know of it, and candidates for its occupation would be prompt and active.

Probably your estimate of California is not far out of the way, and still if I were looking for a location I would figure somewhat on the possibility of working so hard and planning so well as to reap profit in any place where large crops were possible. I don't know anything about northwest Arkansas, and I don't remember seeing mention of it as a honey-producing region. That very fact makes it possible that it may be desirable. People go in flocks, like sheep, and it may be that the flock not having yet tended in the direction of Arkansas, there may be a good outlook. Where strawberries are raised and apple-trees are abundant, there is hope for bees.

On the whole you will probably find that advantages and disadvantages are so mixt up in different locations, a clear field being so much easier to find where honey-yields are moderate, that no one place has all the inviting features, and your own tastes and desires can alone help to make the proper estimate after you are on the ground. Indeed, it may be that what you would consider the most desirable location, all things considered, might be found on the same side of the ocean where you are now.

2. With that amount of money the investment would be mainly in bees and their hives, some part being needed for the necessary supplies and tools. The purchase of land for a permanent location would have to come later, unless in some location where land had little value.

3. It wouldn't do to depend for a living on the sale of wax and honey. A man should at least have enough ahead to support himself for two years, for it isn't so very uncommon to have two successive years of entire failure, and the line of years of failure might stretch out farther than that.

4. The field of queen-rearing is greatly overworkt. To be successful, time, experience, and money in advertising must be freely used.

5. Probably more Italians by far than any other race are now demanded. A catalog before me gives select tested queen, January, February, March, $3.00; April, May, June, $2.50; July, August, September, October, $2.25; November, December, $2.50. But the number of such queens sold is exceedingly small—probably not one for every hundred untested sold for a dollar or less.

6. That depends altogether upon your own proficiency in any line. Nearly anything that you can remuneratively do can be workt along with bee-keeping. Poultry-raising might be mentioned as specially suitable.

Putting on Supers—Swarming.

What time should the supers be put on? Does it interfere with swarming? I would like to have all colonies swarm that will. W. J. S.

Answer.—Putting supers on early has some tendency to prevent swarming. If you want to make sure that they shall swarm, let them be somewhat contracted for room. But this might be carried too far, and it isn't best to delay too long putting on supers.

Plans for Transferring.

1. I have a few colonies of bees in movable-frame hives that I wish to transfer into other and better frame hives. I to-day set a second brood-chamber filled with full sheets of foundation on top of two of them, with nothing between them, thinking they would move upstairs shortly. Can I reasonably expect them to do so, after which I will destroy the old inferior hive, or will I have to adopt some other plan, the Heddon plan, for instance?

2. If not that, how would the following plan do: After a week or 10 days, change places with the brood-chambers, putting the old one on top, shaking all the bees down into the other, then put between them a queen-excluder, allowing them to run in this manner for 21 days, then shake all the bees out of the upper hive and destroy it. If you know of any better plan, please tell it. Northern Illinois.

Answers.—1. This plan is not at all sure of being a success. One reason for this is that bees naturally put their stores above their brood, working downward. You're expecting them to work upward. With no excluder to confine the queen above, you will probably not get the brood out of the lower story all summer. Even with an excluder, I've known queens to sulk—in one case for weeks—refusing to lay upstairs. On the other hand, it happens only too often, that queens will go upstairs and lay there when it is not desired.

The Heddon plan is used chiefly in transferring from box-hives, but there is no reason why it might not also be used with frame hives.

2. Your second plan is all right, and you needn't wait any 10 days, providing the colony is strong. At the end of three weeks you'll have honey to extract from the upper frames, with no brood in the way, unless it be a little sealed drone-brood.

If the colony is not strong (or if you had begun a little earlier in the season), a good plan is to take out of the old hive all combs not containing brood, filling up the space with dummies, setting the old hive on the new one, obliging the bees to use the new one for any entrance. Then as the colony needed more room it would of its own accord begin to occupy the frames of the lower hive with brood, when you could put an excluder between, making sure that the queen was in the lower story.

Honey Crowding Out Brood.

What ought I to do? I have 20 colonies, and about one-half of the hives are so full of honey that they have not room enough for brood. I have no extractor. J. T. K.

Answer.—One way of remedying the trouble is to get an extractor. Another is to take out one or more frames of honey from each hive, replacing with frames of foundation. Quite possibly, however, you may find the trouble correcting itself, for this time of year bees consume a large amount of honey in brood-rearing, and don't gather as fast as they use it.

A Beginner's Questions.

1. Last fall I "took up" a few colonies of bees, and put out the brood-comb, as there was some unsealed honey, for the other bees to clean out. Does that teach them to rob, as they went to robbing a short time after?

2. Will the hive that they robbed last fall do to put a swarm in this summer, as the comb looks clean?

3. Do bees rear a queen (in the spring) themselves when the old one dies in the winter?

4. How long does a worker-bee generally live?

5. May I come again? V. E. H.

Answers.—1. Yes, that would do something toward making them inclined to rob other colonies, providing there were others too weak to protect themselves, but it would not affect them at the present time to any noticeable extent. Probably not many engaged in the affair last fall are now living, and those that are still alive have not a vivid recollection of it.

2. Yes, it's all right.

3. If a queen dies in the winter, leaving no eggs in the hive, it is impossible for the workers to rear a successor. If she dies in early spring, before bees get to flying much, the bees may rear a successor from eggs or larvæ present, but such queens are not likely to prove of much value.

4. A worker that first sees the light now, will live about six weeks. That is, six weeks is about the life of a worker during the season of busy work. They literally wear themselves out at work, and the less they do the longer they will live, within reasonable limits. Bees hatcht late in the season live several months, continuing throughout the winter and helping to get work started the next spring. A queen lives usually two or three years, altho sometimes a 4-year-old may do good work, and in rare cases they may attain the ripe age of 6 years.

5. Yes, come on whenever you have some good, healthy questions.

The Horse—How to Break and Handle.—This is a pamphlet of 32 pages, giving complete instructions for breaking and educating colts, teaching horses to drive, and for use under the saddle, together with many instructions which have never before been publisht, and which are the result of the author's experience covering a period of 20 years. By Prof. Wm. Mullen, with whom the editor of the Bee Journal is personally acquainted. Price, postpaid, 20 cents; or given as a premium for sending us one new subscriber to the Bee Journal for the rest of the year at 50 cents.

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United States Bee-Keepers' Union.

Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

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Editorial Comments.

The Buffalo (N. Y.) Meeting of the United States Bee-Keepers' Union will be held Tuesday, Wednesday and Thursday, August 24, 25 and 26, 1897, the first session being at 10 a.m. of the 24th. This is during the annual meeting of the Grand Army of the Republic, when railroad rates will be low. Further information as to the hall, hotel rates, etc., will be given later.

We trust that there may be a grand rally this year at Buffalo. With the assured advantage of reasonable railroad rates, there ought to be a large attendance. Begin to plan *now* to go. You will have over two months to get ready in.

◆

Retail Packages for Extracted Honey.—Mr. R. C. Aikin, in Gleanings for June 1, has an excellent article on the marketing of extracted honey, in which he truly says that there is really no popular retail package for it, as there is for syrups. He seems to lean toward the same idea that we advanced in the essay we read at the Wisconsin convention last February, namely, honey-producers will have to put up extracted honey in small tin receptacles—say pints and quarts—in order to induce a more general consumption of honey.

But the great difficulty to overcome is that of granulation. If any pure extracted honey could be retained indefinitely in its liquid form, the problem could the more easily be solved. But as that seems well-nigh impossible, perhaps the next easiest thing is to educate the people concerning the granulating tendency of pure extracted honey, and to get them to purchase only the candled article, and thus feel reasonably certain that they are getting the pure thing.

We experimented with pint and quart tin cans, with an inch screw cap, costing respectively $3.50 and $4.00 per 100. Perhaps in lots of 1,000 these prices could be reduced 10 or 15 per cent. But the grocers objected having honey in tin, as it could not be seen as in glass. They rely principally upon its attractive appearance to make sales, and so they demand it put up in glass.

It will be a slow, hard job to make a success of selling honey in tin, and then we think it will have to be done by individual effort and education of the public. There are too many people who think that candied honey is only a kind of sugar.

Honey is so different from everything else, that it is utterly impossible to lay down any regular rule that can or will apply to it. Most people look upon it as a luxury, and until they are educated differently, we do not soon look for any sudden general or extensive demand for honey. Only time, and continued and untiring effort on the part of bee-keepers and honey-sellers will accomplish much, we think.

◆

A Grand Exposition in Chicago will be held from next Sept. 25 to Oct. 16. It is to be called "The Illinois Manufacturers' Exposition of Home Products," and will be in the "Coliseum," the largest exhibition building in the world. No doubt reduced railroad rates will be obtained at that time, especially in Illinois and the near-by States.

A reader of the Bee Journal asks, "Why can't there be a meeting of the old Northwestern Bee-Keepers' Association about that time—say the second week in October?" We don't know any reason why there can't be. What do others say about it? We shall be glad to do all we can to perfect the necessary arrangements, in case it is decided to hold the convention.

Suppose all who are interested, and would like to attend such a meeting, just drop us a card to that effect.

◆

The Simpson Honey-Plant is one that has been well recommended by those who have given it a trial. They say it is a real *honey*-plant. Mr. Geo. W. Williams, of Missouri, who has grown it extensively, has this to say about it:

> EDITOR YORK:—While I do not wish to get into any controversy with any bee-keeper, and especially one as high in authority as Dr. Miller, still I would like to answer the inquiry of J. H. D., on page 294. Let me say to him, plant your ¼ acre of spare ground in Simpson honey-plant, and get four times as much nectar as *any* other plant in cultivation that I am acquainted with.
>
> Dr. Miller says: "But ¼ of an acre of ground cannot be expected to do a great deal of good, no matter what it contains." Let us see. On that ¼ of an acre J. H. D. can set and grow 1,500 Simpson plants, and while I have not made a scientific calculation upon the average production of the plant, yet I place it at ½ pound of honey to the plant, which would be a yield of 750 pounds of honey. When I say "plant," understand that I mean hill or bunch, for in setting a single plant it will stool, like pie-plant, and send up from two to six fine stalks from each hill, if properly cultivated.
>
> When Mr. Root said: "One bloom of the Simpson honey-plant is equal to 100 basswood blooms," he put it very mildly.
>
> It commences to blossom about the middle of June, and keeps a continuous bloom until a late *hard* frost cuts it off, and the bees work on it from early morn until dark.
>
> Yes, by all means, plant that ¼ of an acre to the Simpson honey-plant, and watch the bees swarm after it. Of course, I am speaking for my latitude (Missouri), as I know nothing about what it will do in other places. I have been cultivatihg it for some time, and speak from experience. There are *two* kinds of it, and one is very much superior to the other.
>
> GEO. W. WILLIAMS.

In a former communication, Mr. Williams wrote us as follows about this fine honey-plant:

> It pays better than any other crop I can raise. I have it and sweet clover growing side by side, and, to use the boy's expression, the sweet clover "isn't in it" for honey. The early frosts that killed almost all other blooms does not affect

it, but it keeps right on "bearing" honey until it freezes. It will withstand more drouth than any other plant, sweet clover *not* excepted. For best results, it should be sown in the *fall*, in seed-beds, like tobacco, and transplanted in rows about four feet apart, and cultivated a few times during the season.

We might say that we have arranged with Mr. Williams to furnish us some seed of the Simpson honey-plant in time for it to be sown next fall. The price will be, one ounce for 20 cents, or two ounces for 35 cents, postpaid. Or, we will send one ounce as a premium for sending us one *new* six months' subscriber for the Bee Journal at 50 cents, or two ounces for one *new* subscriber for a year, at $1.00. Orders can be sent in any time, and they will be filled in rotation as soon as we get the seed from Mr. Williams, who will write an article describing fully just how to grow the plant, in time to be of use next fall.

◆

Honey-Lemonade.—Mr. C. Davenport, in Gleanings, speaks highly of the merits of lemonade made with honey. He claims a greater refreshing effect than from ordinary lemonade. He tells about it thus:

> There is another way some honey can be very profitably used by bee-keepers, and that is by converting it into honey-lemonade, as occasion may offer......As the people of our town celebrated the Fourth of July last year, I resolved to give the matter a trial that day. I was not able to leave home myself, but I got two young men in the neighborhood interested in the matter, and they were eager to try it on shares. We took a low wagon with a big hay-rack on it, and fitted a canvas top over it and to one side. The other side was left open except for a strip of canvas at the top, on which was printed in large letters of red and blue—"PURE HONEY LEMONADE."
>
> I furnisht a number of newly-built combs in brood-frames to hang up on the back side of the rack. Quite a display was also made of section honey, and extracted in glass of different sizes; a frame of bees with a queen, in an observatory hive, and two boxes with wire-cloth on both sides, containing bees, were also used to attract attention. The whole was decorated with evergreens, flags and flowers. I furnisht a steady team so the boys could haul the "rig" around where the people were the thickest.
>
> Before and after the Fourth we had some very hot weather; but the glorious Fourth was a cool, cloudy, even chilly day, compared with the weather just before; and on this account our sales were not what they would have been on a warm day. Many of the other lemonade stands did not pay expenses; but the boys gave me $13.45 as my share of the profits on the sale of lemonade. The whole time the three of us spent in arranging the wagon was not over half a day. The lemonade was made just the same as any, except pure extracted clover honey was used to sweeten it instead of sugar. While I do not know that many would like its taste any better than that sweetened with sugar, it is certainly much more refreshing, and has a pleasant or stimulating effect. We used a large amount of it at our place last summer; and many of the neighbors who drank some, bought honey to make it.
>
> In selling honey-lemonade at a public stand, those who buy it seem to notice its refreshing effect, and return for more. I believe it is a very healthful drink, and I am going to see if it will keep when bottled up air-tight. If it will, I intend to put some of it on sale this summer among druggists and grocers.

Encyclopedia for Beeswax.—Some time ago we offered a splendid work of eight large volumes, called "The New Standard American Encyclopedia," having nearly 4,000 pages, and over 300 colored maps, charts, and diagrams. Size of volume, 2 inches thick, 8½ wide, and 11½ long. As per that offer, last publisht on page 186, the eight volumes were offered by freight for only $19 cash. We can furnish a set or two at that price, bound in half morroco; or will exchange a set for 75 pounds of yellow beeswax, delivered at our office. You would be more than satisfied with the Encyclopedia, and a set of such books ought to be in every family for reference.

◆

Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offer on page 362.

The Weekly Budget.

REV. W. P. FAYLOR, a bee-keeper and apiarian writer of Franklin Co., Iowa, is also associate editor of The Parish Outlook.

MR. J. W. VAN ALLEN, of Crawford Co., Wis., wrote us May 31, that he was suffering from a head trouble, and that his physician advised complete rest. We regret to hear this, and trust that Mr. Van Allen may soon be all right again.

MR. PERCY STONE—son of Secretary Jas. A. Stone, of the Illinois State Bee-Keepers' Association—made the Bee Journal office a pleasant call last week. He had been employed in Chicago the past few months, but was on his way back to the good old farm in Sangamon county.

MR. W. H. PRIDGEN, of Warren Co., N. C., has sent us his "catalog and price-list of queens, together with combined and improved methods of queen-rearing." It presents a neat appearance, and should prove a good advertisement for Mr. Pridgen, who is a promising young bee-keeper of the South.

MR. J. Q. SMITH, of Logan Co., Ill., wrote us June 3, as follows:

"My bees are in fine condition. I had 8 swarms in May. The prospects for clover honey are good. I am putting on sections. The weather is rather cool."

MR. M. M. MILLER, of Livingston Co., Ill., called on us recently. He reported the prospects good. Last year bee-keeping was practically a failure in his locality, but the year before they had a good crop. One colony that year yielded $20 worth of honey. But last year it didn't produce an ounce.

MR. C. M. MCLEAN, of Baltimore Co., Md., wrote us May 25, when sending his renewal subscription:

"The American Bee Journal has reacht me regularly, and I must commend you for its prompt appearance every week, and for its sterling worth."

REV. L. J. TEMPLIN, of San Diego Co., Calif., wrote May 17:

"I don't see much merit in those taking the American Bee Journal who, as they say, can't get along without it. Now I could get along without it, but I won't as long as can get it—so, there!"

"PROF. LAWRENCE BRUNER, so favorably known by those who attended the Lincoln convention, has been employed by the Argentine Republic to study the grasshopper plague they've had for ten years. He sailed from New York April 24, having a year's leave of absence from the University of Nebraska."—Straw in Gleanings.

MR. W. W. CARY's apiarian establishment, located in Franklin Co., Mass., is shown by a full-page engraving in Gleanings for June 1. Mr. Cary says his "father was the first man to propagate the Italian bee." He was also a friend of the lamented Langstroth, who made many experiments in the senior Cary's apiary when inventing the movable-frame hive.

MR. A. G. WILSON, of Vernon Co., Wis., writing us June 1, said:

"I fear our basswood honey crop in this locality will be short—possibly none—on account of two hard frosts—one this morning and one yesterday morning. So far as I have noticed, the fruit is all frozen. Bees are in about the usual condition for this date."

PROF. A. J. COOK has recently engaged with The Los Angeles Herald—one of the large daily newspapers on the Pacific Coast—to conduct its agricultural department. It will be well done. The Professor is doing lots of journalistic work nowadays. We don't see how he can stand it to do so much, unless it be that the California ozone is a wonderful brain strengthener.

☞ See "Bee-Keeper's Guide" offer on page 350.

Now for New Subscribers for the rest of 1897: We would like to have each of our present readers send us at least *one new subscriber* for the Bee Journal before July 1, 1897. That surely will not be hard to do, when they will need to pay *only 50 cents* for the rest of this year. That is about 7 months, or only 7 cents a month for the weekly American Bee Journal. Any one with only a colony or two of bees should jump at such an offer as that.

Now, we don't ask you to work for us for nothing, but will say that for each new 50-cent subscriber you send us, we will mail you your choice of *one* of the following list:

Wood Binder for the Bee Journal	20c.
50 copies of leaflet on "Why Eat Honey?"	20c.
50 " " on "How to Keep Honey"	20c.
50 " " on "Alsike Clover"	20c.
6 copies "Honey as Food and Medicine"	20c.
1 copy each "Proparation of Honey for the Market" (10c.) and Doolittle's "Hive I Use" (5c.)	15c.
1 copy each Dadants' "Handling Bees" (8c.) and "Bee-Pasturage a Necessity" (10c.)	18c.
Dr. Howard's book on "Foul Brood"	25c.
Kohnke's "Foul Brood" book	25c.
Cheshire's "Foul Brood" book (10c.) and Dadants' "Handling Bees" [8c.]	18c.
Dr. Foote's Hand-Book of Health	25c.
Rural Life Book	25c.
Our Poultry Doctor, by Fanny Feild	25c.
Poultry for Market and Profit, by Fanny Field	25c.
Capons and Caponizing	25c.
Turkeys for Market and Profit	25c.
Green's Four Books on Fruit-Growing	25c.
Ropp Commercial Calculator No. 1	25c.
Silo and Silage, by Prof. Cook	25c.
Bienen-Kultur [German]	40c.
Kendall's Horse-Book [English or German]	25c.
1 Pound White Clover Seed	25c.
1 " Sweet " "	25c.
1½ " Alsike " "	25c.
1½ " Alfalfa " "	25c.
1½ " Crimson " "	25c.
Queen-Clipping Device	30c.
The Horse—How to Break and Handle	20c.

We make the above offers only to those who are now subscribers; in other words, no one sending in his own 50 cents as a new subscriber can also claim a choice of the above list.

◆

New Union and the Bee Journal.—In order to help our subscribers, and also the United States Bee-Keepers' Union at the same time, we have decided to offer a year's subscription to the American Bee Journal and a year's membership dues in the New Union, both together, for $1.75. But it must be understood that in order to get this rate, all arrearages of subscriptions must be paid, and the $1.75 rate to apply on advance subscription.

Now send us your orders, and we will attend to turning over the $1.00 membership fee to the New Union, on each subscription to the Bee Journal as per the above offer. This ought to add 500 members to the New Union by June 1. If it does, our contribution will be just $125.

Now, if you want to see the New Union succeed in its grand work, in the interest of *all* the bee-keepers, come on with your cash. General Manager Secor is just aching to do his part whenever he sees sufficient funds in the treasury to pay the bills.

◆

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

◆

Back Numbers Since Jan. 1.—We are able to supply complete sets of the Bee Journal since Jan. 1, 1897, to any who may desire, at two cents per copy. There are a number of new readers who perhaps would like to get some of the first numbers of this year, to complete their volume for 1897. We shall be glad to furnish them as long as they last, at two cents each.

◆

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

QUESTIONS & ANSWERS.

Conducted by Dr. C. C. Miller.

Peculiar Effects of Bee-Stings.

On page 230, G. S., of Utah, mentions the effect bee-stings have on him. The effects are worse on me; besides acting just as he describes, I sometimes, "as women say," faint away. Altho I have handled bees more or less for 20 years, I have not felt any great inconvenience until the last few years. A few nights since I had a severe cough in bed. I went downstairs and found a section of honey, partly capt. I took a part of three tea-spoonfuls, and it had the same effect on me that a sting has—feet tingling instantly, throat and lips swelled inside, and caused severe vomiting. I would be grateful if you, or some wise man from the East, could suggest a remedy, and thereby help a poor orphan. Would whiskey have a counteracting effect on bee-stings as well as on snakes? I have never used it, and don't know.

British Columbia.

Answer.—I confess my inability to help out, and will be glad if any one else will do so. I don't know about the whiskey, but it might possibly serve bee-stings the same as snake-bites.

◆

Keeping the Queen Out of the Super—Putting on Supers.

I produced extracted honey last year, having 7 colonies and 4 swarms, from which I took 1,025 pounds of extracted honey. This season I have made arrangements for producing comb honey with some of my colonies.

1. Will a queen enter a super filled with sections and lay there, if there is no protection? or must there be honey-boards or perforated zinc on top of the brood-frames to keep the sections clear of brood?

2. Which is better to put on a hive, one or two supers at the same time? Wisconsin.

Answers.—1. I allow my queens liberty to go into the sections if they wish, and once in a great while I find brood in a section, but it so rarely happens that I prefer not to use queen-excluders, notwithstanding I had enough excluders last year lying idle to furnish one to each colony. I know that some complain that queens go up into the supers, and I don't understand why their experience should be different from mine, unless it be that they don't use separators. Very likely a queen would trouble more about going up and laying in the supers if separators were not used.

2. Put on one super at first, and when that is half filled, or thereabouts, raise it up and put a second one under it.

◆

Perhaps Bee-Paralysis.

I introduced an excellent queen to a queenless colony just in the opening of the honey season last year. She laid up nicely, I discovered a few days after the hatching of the first brood. There were some dead bees in front of the hive. I thought it might have been troubled by insects or robbers, but it was not, so I contracted the entrance. Bees continued dying. I examined the hive, and found a queen laying as usual. The combs were very well covered with bees, yet every day a dozen or two are to be seen dead, and to the present time the same, which is about five months now. It has seven frames of good combs, drawn from sheets of foundation. It never decreases, but the increase is thrown outside. I observed about four or six of them take hold of one and bring it to the ground. It is left there, where it dies. The dead ones are yellow all over except a little jet black at the point of the tail, whilst the others are regularly banded (yellow). The colony has brood and eggs, but about the same quantity of bees as when the queen was introduced. Jamaica.

Answer.—Perhaps paralysis. If so, you'll see the affected bees trembling all over, and the bees drag them out of the hive while still alive. The change of color is due to the fact that the plumage has disappeared from the sick bees, leaving the yellow and black parts more pronounced in color, and shiny. As yet no sure cure for paralysis seems to have been found, altho many cures have been announced.

Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Sorghum for Spring Stimulation.

Query 52.—Is cane sorghum a safe and desirable food to use for stimulative purposes in spring?—C.

Rev. M. Mahin—I think not.

P. H. Elwood—I do not know.

E. France—I would not use it.

W. G. Larrabee—I don't know.

Dr. J. P. H. Brown—It is *poor* food at any time.

J. A. Stone—I could not say, as I have never tried it.

J. A. Green—I should consider it safe, but have never tried it.

Prof. A. J. Cook—I think almost any food is safe then. Yes.

Chas. Dadant & Son—Hardly. We would prefer something better.

H. D. Cutting—I don't remember using it, and don't know much about it.

J. M. Hambaugh—I thing not. I never used it, however, and am not authority.

G. M. Doolittle—It is doubtful about such "stimulative purposes" paying in average seasons.

Emerson T. Abbott—Better sell or eat the sorghum, and give the bees syrup made from granulated sugar.

A. F. Brown—I have never been able to get bees to take syrup of any kind other than that made from sugar.

Dr. C. C. Miller—It's safe to use almost anything when bees are flying every day, and desirable if bees seem to like it.

Eugene Secor—I don't know. If bees will use it from an open vessel in the yard, I don't believe it would do any harm.

Dr. A. B. Mason—I believe it would be safe, but whether it would be desirable or not will depend upon its quality and price.

R. L. Taylor—Bees could not be stimulated by sorghum in any way that I know. Syrup made from it, if good, would answer very well.

C. H. Dibbern—I do not think cane sorghum either a safe or desirable food at any time for bees. Sugar syrup is much better and cheaper.

G. W. Demaree—Yes, when the bees are able to fly out every day or so. But my bees are awfully dainty and snuffy about taking sorghum!

J. E. Pond—I do not consider it a safe food for any purpose, and do not advise its use. Why use it, anyhow, at the present low price of refined sugar?

Wm. McEvoy—I have had no experience with sorghum. Don't stimulate in early spring in cold countries; unless you want to get one young bee for the loss of three old ones. Between fruit-bloom and clover is the right and only correct time to stimulate; if done then, and always in the evening, it will pay well.

Mrs. L. Harrison—I do not believe it pays to feed bees in spring, unless they are starving. A woman living near me was ambitious to have her colonies do better than mine. With this end in view, she fed them abundantly. At

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IT SELLS ON TASTING.

The Honey that Suits All Who Buy It.

Low Prices Now!

We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 7½ cents per pound; 2 cans in one case, 7 cents; 4 cans (2 cases) or more, 6½ cents. The Cash MUST accompany each order. **Fine Basswood** Flavor Honey at same price; also in 270-lb. barrels.

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Works Like a Charm.

The Monette Queen-Clipping Device WORKS LIKE A CHARM. With it I have clipped 30 queens, all in one day, when examining my bees. WM. STOLLEY, Grand Island, Nebr.

Couldn't Do Without It.

I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now. DR. GEO. LACKE, Newburgh, Ind.

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We will give a fine Tested Queen (either race) to all customers ordering 6 Untested Queens, and a fine Select Tested Queen to all who order 12 Untested Queens at one time. The Queens given away will be sent to customers in August.

Grade and Prices of Bees and Queens	April May June	July Aug. Sept.
Untested Queen	$ .75	$ .65
Tested "	1.50	1.25
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GEO. E. HILTON,
9D9t FREMONT, MICH.
Mention the American Bee Journal.

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HENRY ALLEY, Wenham, Mass.
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MINNEAPOLIS, MINN.,
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	5lb	10lb	25lb	50lb
Alsike Clover	.70	$1.25	$3.00	$5.75
Sweet Clover (white)	.60	1.00	2.25	4.00
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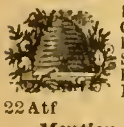
If you contemplate buying either three or five band Italian Queens, simply write for my pamphlet. If you need some of the best now, send 75 cts. for one, $4.00 for six, or $7.50 per doz.—and full instructions for introducing, as well as the best methods known for securing good cells will be sent free.
Money Order office—Warrenton.

W. H. PRIDGEN,
21A13t CREEK, Warren Co., N. C.
Mention the American Bee Journal.



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Mention the American Bee Journal.

swarming time she confest that her bees were not as populous as mine, that had not been fed. They are nosing around the feeders in lieu of going to the fields.

General Items.

White Clover Cheers Him.

White clover heads are coming out. How it cheers me to think I may have a honey crop after three years of failure.

GEO. F. ROBBINS.
Sangamon Co., Ill., May 22.

Wet and Cold Weather.

I wintered 40 colonies on the summer stands, and no loss at all. May was wet and cold, and bees are not doing much yet—not a swarm out. It is the first season that I have seen with no swarm in May.

C. W. LEARNED.
Wayne Co., Mich., June 2.

Good Season Expected.

The fruit-trees are all in bloom, but on account of the cold and rainy weather, the bees derive but little benefit from them. I lost three colonies to-day by spring dwindling. We have had three very poor honey seasons, but I expect a good one this year. I started four years ago with one colony; I bought a good bee-book and subscribed for the American Bee Journal, and now I am getting along all right.

M. P. HEESAKERS.
Brown Co., Wis., May 27.

Early White Clover Crop.

The honey season opens up bright in this locality, and the indications are that we shall have an early crop of white clover, which is the chief source here for comb honey; still, "there's many a slip," etc., you know, and we may have hot, dry weather in latter May and early June, that will burn the clover up completely.

J. E. POND.
Bristol Co., Mass., May 7.

Bee-Keeping in Southern California.

It is now a year and a half since we came to this part of the country, seeking health for both self and wife. I purchast a ranch of 164 acres about 10 miles east of San Diego, and lying on the upper side of the noted Sweet Water Reservoir. We are 7 miles from the Bay, and 15 miles from Old Mexico. Our ranch lies at the foot of the San Miguel mountains; some of it running up on the side of these mountains. Soon after coming here, as I could not find any bees to purchase, I took 27 colonies on shares—each party to furnish one-half of the supplies, and the proceeds in both bees and honey to be divided equally between us. Last year being one of the most extreme of the extremely dry seasons of this part of the State, I got neither increase nor surplus, and lost four colonies.

Having purchast 10 colonies, I started in this spring with 39 colonies. From these we now have 95 colonies, some half-dozen of which were double swarms, and the last two I have run back into the hives from which they issued. I am more anxious now for honey than any

An Ounce of Prevention

—you know the rest. In this case it consists in taking a few bottles of that thoroughly reliable life saver

Warner's Safe Cure

After the long winter of inactivity you may find the spring work and the hot sun more than you are able to bear. You may be debilitated; your liver may not be working well; you may have dyspetic tendencies. The above remedy will fix you up and make you feel good as new. It is an infallible cure for

BRIGHT'S DISEASE
URINARY TROUBLES
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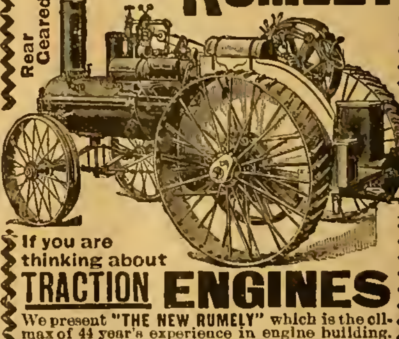

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Smokers, Sections, Comb Foundation, And all Apiarian Supplies cheap. Send for FREE atalogue. E. T. FLANAGAN, Belleville, Ill.
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M. H. HUNT, Bell Branch, Mich.
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Bees by the Pound, $1.00. Queens $1.00. Nuclei, 2 frame with Queen, $2.50; 1-frame, $2 00 Also, **Barred & White Plymouth Rocks, and Silver-Laced Wyandottes Eggs** at $1.00 per sitting of 15. Address,

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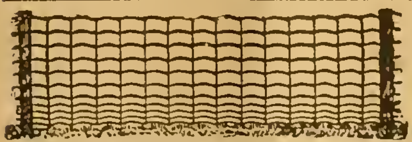

A Conscientious Farmer.

He lives in Indiana. After some one had persuaded him to buy another coiled spring fence, he satisfied himself that it infringed on the Page Company's patents. Then he wrote asking us to name a reasonable royalty, on payment of which he might be allowed to use it, and hereafter be will buy of the rightful owners.

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.
Mention the American Bee Journal.

further increase of bees. Honey is coming in slowly but steadily. My proximity to the lake is a great help (especially in a dry season) to my bees, as many honey-yielding plants flourish around the margin of the water when it is too dry for the higher grounds to yield a supply.

Our location is a good one for bees, as the mountains stretch away to the north, east, and south, for many miles. In the early spring, say February and March, the whole country, upland and lowland, is purple with altilarilla. Then comes the mountain alfalfa, white sage, buckwheat, sage and sumac, with which the mountains are in many places literally covered. Then on the west, within reach of our bees, are numerous orange and lemon orchards, and eucalyptus groves, all of which furnish excellent bee-forage.

The past winter was considered quite favorable for the bee-business; the rains, both in quantity and manner of falling, were considered favorable. But for some reason the large crop hoped for does not seem to be forth-coming; so bee-men begin to think the crop, in this part of the country, will not be a heavy one.

The price of honey in this country is not extravagantly high—comb bringing 6 to 8 cents per pound in small lots, and extracted 3 to 4 cents. Bee-men will not soon be burdened with their millions in this region, unless some rich uncle dies and leaves it to them. But "Hope" keeps her wings bright.

L. J. TEMPLIN.
San Diego Co., Cal., May 17

Good Prospects for Honey.

Prospects for honey this season are good. Clover is more abundant than it usually is, and is just coming into bloom, tho there is not enough here to amount to much; we depend upon Spanish-needle and heart's-ease for our honey.

R. P. MAHON.
Effingham Co., Ill., June 1.

Good White Clover Prospects.

I have taken the American Bee Journal for the past 10 years, and shall as long as I keep bees.

We are having cold, wet weather, with several frosty nights in this part of Michigan. But the bees seem to be building up slowly. There are good prospects for white clover, which is just beginning to bloom. C. A. WRIGHT.
Cass Co., Mich., May 29.

Bees Doing Well—Keeping Honey.

Bees are doing well this season so far, and prospects are good for the whole season. I have several colonies that have filled one full-sized 8-frame upper story, and a number that have filled ordinary supers. I run for extracted honey, and never saw any that had deteriorated any because of its age. If properly put up, I think it would keep forever. (REV.) ALSON W. STEERS.
Kings Co., Wash., May 27.

Albino Bees—Sweet Clover.

Bees are doing better this spring than for three years. All indications are good for a fine honey season and farm products. Our main honey-flow is just now commencing. I have in my front yard

I ARISE

TO SAY to the readers of the BEE JOURNAL that
DOOLITTLE
has concluded to sell —BEES and QUEENS— in their season, during 1897, at the following prices:

One Colony of Italians on 9 Gallup frames, in light shipping-box	$6 00
Five Colonies.....	25 00
Ten Colonies......	45 00
1 untested queen.	1 00
6 " queens	5 50
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3 " Queens.	3 50
1 select tested queen	2 00
3 " " Queens	4 00
Select tested queen, previous season's rearing .	4 00
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About a Pound of BEES in a Two-frame Nucleus, with any Queen, $2.00 extra.

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☞ Circular free, giving full particulars regarding the Bees and each class of Queens.

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Nuclei and Queens!

On 2, 3 and 4 frames, at 40 cents per frame, without Queen. Queens 40 cents each; good tested Queens, 75 cents each. Address,
23A2t **Arthur Stanley, Dixon, Ill.**
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SEE THAT WINK!

Bee - Supplies! ROOT'S GOODS at Root's Prices.

Pouder's Honey - Jars, and every thing used by bee-keepers. Prompt service, low freight rate. Cat. free. Walter S. Pouder,
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BINGHAM
BeeSmoker
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Best on Earth !

19 Years

Without a Complaint.

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	Per Doz.	By Mail.
Smoke Engine, 4-in. stove [Largest smoker made.]	$13.00	each, $1.50
Doctor.........3½ in. stove	9.00	" 1.10
Conqueror....3 " "	6.50	" 1.00
Large..........2½ "	5 00	" .90
Plain... .....2 " "	4.75	" .70
LittleWonder 2 "[wt.10 oz]	4.50	" .60
Honey-Knife.................	6.00	" .80

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Apiarian Supplies, Bees, Etc.

is yours for the asking. It is full of information. ☞ Write for it.

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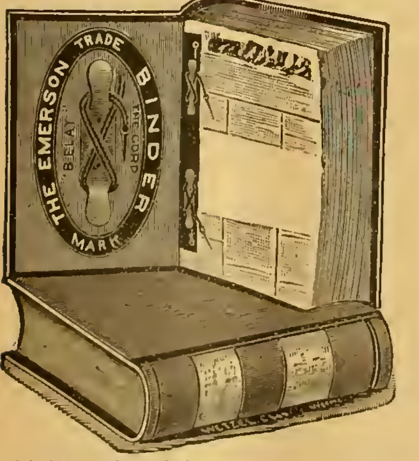
—A GENUINE—

Egg Preservative

That will keep Hen's Eggs perfectly through warm weather, just as good as fresh ones for cooking and frosting. One man paid 10 cents a dozen for the eggs be preserved, and then later sold them for 25 cents a dozen. You can preserve them for about **1 cent per dozen.** Now is the time to do it, while eggs are cheap.

Address for Circular giving further information—

Dr. A. B. MASON,
3512 Monroe Street, - TOLEDO, OHIO.



We have a few of these Emerson stiff cloth-board binders for the American Bee Journal. They make a splendid permanent binding, and hold a full year's numbers. The old price was 75 cts., postpaid, but we will mail you one for **only 60 cts.,** or with the Bee Journal for one year—both together for $1.50.

about six square rods of red clover that has been in bloom for the past two weeks; my Albino bees work freely on it, but not one bee of any other strain have I seen on it. I think they must have a longer tongue. The Albinos and their crosses are taking the lead in my yard this season.

I notice some say stock won't eat sweet clover. All my stock eat it. I have been trying to seed a woodland pasture to it, but the stock won't let it grow.

J. D. GIVENS.
Dallas Co., Tex., May 25.

Hoping for Warm Weather.

Bees wintered well, only one being queenless out of 14, and it had a slight attack of bee-paralysis. I got a queen from the South, which seemed to put new life into the colony. They are doing well, considering the weather. It is very cool at present. I hope it will get warmer. My best yield of section honey from one colony was 136 one-pound sections, and it had about 50 pounds for winter, as nearly as I could judge. I have all the home trade for it that I can supply. I have been keeping bees since I was a small boy.

C. C. YOST.
Berks Co., Pa., May 29.

Cold and Wet Spring.

Bees wintered well, but the spring has been very cold and wet. Colonies have built up well, and showed signs of swarming, but now they seem discouraged, and have killed and dragged some drone-brood out of the hives. We hope for better weather before white clover blooms. We are prepared to handle all the swarms and all the honey our bees can store this year, and live in hope that we may secure a good crop.

F. C. MCCLAIN.
Mason Co., Mich., May 31.

Waiting for White Clover.

Bees are waiting for white clover; some are all ready to swarm. I opened a hive last Saturday and found queen-cells with eggs in them. The colony was very strong, and had brood in all 10 frames. It is dry and cold. A warm rain and warm weather will give good prospects.

WM. RENNE.
Boone Co., Ill., May 31.

A Rainy Spring.

I do not know what to think of the season. It has rained about three days out of every four since I have been here (from Illinois). On this account I have had to feed my strongest colonies. The bee-keepers around here say we shall have a poor season. There is any amount of white clover around here that will be in blossom in a few days; but this rain—they say it is not going to stop. The bees were out for their first flight in five days to-day, and now it is raining this evening. Before I came here I hoped we would have a wet spring, but my hopes are more than realized. I have 24 colonies and 6 nuclei.

E. W. BROWN.
Erie Co., N. Y., May 30.

Bee-Keeper's Guide—see page 350.

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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., May 6.—There is very little honey coming to the market, and fine lots of white comb brings 13c. Yet only a little is taken by the dealers, the season for it being over with the coming of strawberries, which are now plentiful. Extracted brings about late quotations, with beeswax in active demand at 27@28c. for best grades.

San Francisco, Calif., May 6.— White comb, 9-10c.; amber, 5-7c. Extracted, white, 5½c.; light amber, 3½-4c.; dark tule, 2¾c. Beeswax, fair to choice, 25-27c.

New York, N. Y., May 20.—Old crop is well cleaned up, both comb and extracted, and our market is in good shape for new crop, which is now beginning to arrive from the South. It is in fairly good demand at 50@52c. per gallon for average common grade, and 55 @60c. for better grades.
Beeswax is rather quiet at 26@27c.

Detroit, Mich., May 1.—Fancy white comb, 11@12c.; No. 1, 10@11c.; fancy amber, 9@10c.; No. 1, 8@9c.; dark, 7@8c. Extracted, white, 5@6c.; amber, 4@5c.; dark, 4c. Beeswax, 25@26c. Demand is slow for honey, and plenty in commission house.

Kansas City, Mo., May 20.—Fancy white, 12@13c.; No. 1, 11@12c.; fancy amber, 10@11c.; No. 1, 9@10c.; fancy dark, 8@9c.; No. 1, 8c. Extracted, white, 5@5½c.; amber, 4½@5c.; dark, 3½@4c. Beeswax, 25c.

Cincinnati, Ohio, May 7.— Demand is slow for all kinds of honey. Comb honey, 9@14c. for fair to choice white; extracted, 3½@6c. There is a fair demand for beeswax at 22@25c. for good to choice yellow.

Minneapolis, Minn., May 1. — Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Philadelphia, Pa., May 1.— Fancy white comb, 12-13c.; fancy amber, 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3½-4c. Beeswax, 25c.
Season is getting over for comb honey—very little demand. Extracted in good demand.

St. Louis, Mo., May 1.— Fancy comb, 12@@13c.; No. 1 white, 11@11½c.; amber, 9@10½c.; dark, 7@8½c. Extracted, white, in cans, 6@7c.; amber, in barrels, 4@4½c; extra, 5c.; dark, 3@4c. Good demand for barrel stock—comb slow sale. Beeswax, 23@23½c. —prime finds ready sale at 23½c.

Albany, N. Y., May 1. — Fancy white, 12-13c.; No. 1, 11-12c.; fancy amber, 9-10c.; No. 1, 8-9c.; fancy dark, 7-8c.; No. 1, 6-7c. Extracted, white, 5-6c.; dark, 3½-4c.
Demand is all that could be expected at this season. Stock on hand small.

Indianapolis, Ind., May 1. — Fancy white 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.
Demand is fair for grades quoted, but no demand for inferior grades.

Buffalo, N. Y., May 28.—The honey season here is about wound up for the present. There are a few stray sales of fancy at 10 and 11 cents, while common is selling at any price, quotable at 9@4c. No extracted of consequence here.

Boston, Mass., May 1.— Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

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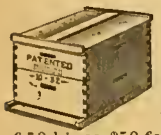

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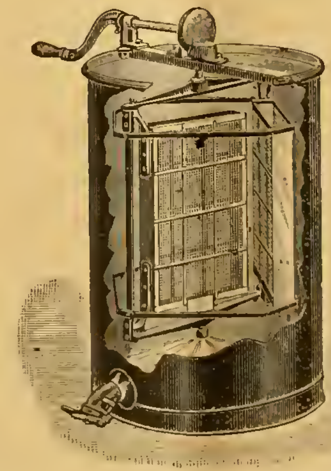

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37th Year. CHICAGO, ILL., JUNE 17, 1897. No. 24.

Contributed Articles

The Sugar Question—Bee-Food and Glands.

BY PROF. A. J. COOK.

I have been requested to reply to the following, which was sent to the editor of the American Bee Journal:

MR. EDITOR:—Prof. Cook tells us on page 179: "Thus the symbol of water is $H_2 O$, and of sugar $C_{10} H_{10} O_5$. In both these cases we see that there is just twice as many atoms of oxygen as there are of hydrogen." I'm not much acquainted with chemistry, but it looks as if those figures showed more hydrogen than oxygen, for I suppose H stands for hydrogen. How is it? And is there a chemical formula that makes him say "there *is* twice as many" where common folks would say "there *are* twice as many?" Aside from these things there is much I can understand in the article, and Prof. Cook is doing good service to instruct us in such matters.

NON-CHEMICAL.

It is unfortunate that Chicago and California are so widely separated, as this makes it impossible for me to see the proof of my articles, else the above errors would not have occurred. I do not wonder that "Non-Chemical" is puzzled over the above. I was chagrined as I read the article, and have taken this first opportunity to correct the errors.

The formula for glucose is $C_6 H_{12} O_6$. This is the true formula for the grape-sugar of commerce, the sugar of digestion, liver-sugar, and the honey-sugars. The formula for starch is $C_6 H_{10} O_5$, and the same is true of glycogen or liver starch or animal starch as it is called. It will be seen that all of these substances contain hydrogen and oxygen in the same proportion that they are found in water, that is, two equivalents of hydrogen to one of oxygen. It is supposed that starch and glycogen are changed to sugar, the first, in digestion, the second, in the liver, by the adding of one equivalent of water.

There is no chemical formula that should make any one say there *is* twice as many. That is a pure case of false syntax that it seems will once in awhile get into the best of papers.

OTHER BEE-FOOD.

As every bee-keeper knows, bees not only require honey, or the sugars for food, but are equally dependent upon pollen. This forms the nitrogenous food of bees, and is without doubt required by all the bees, young as well as old, and all of the old bees, drones, workers and queens. It is probable that the drones and queens need not a little of this nitrogenous or albuminous food. The method of preparing this has been a matter of no little dispute. The pollen which is secured by the bees in the field is very different from the rich, albuminous food which we find in the cells with the larval bees, and in such large quantities in the queen-cell with the developing larval queen. It seems certain that the bees digest the pollen and form the rich food which is fed, certainly to all larvæ, and without any doubt to the queens and drones as well. It seem also evident that the lower head-glands secrete the ferment which affects this digestion of pollen.

True, Mr. Cheshire says in his book, that these lower head-glands secrete the very substance which is fed to the brood. I think I have proved that this is not the case. I think that the secretion from these lower head-glands mixes with the pollen, and both go together to the true stomach where the pollen is digested or changed into the royal jelly and other nitrogenous food preparing it for the bees. I fed bees honey which was mixt with pulverized charcoal, and with the microscope found this in the royal jelly. Thus, it would be seen certain that the bees regurgitated the food which is fed to the larvæ. It would be impossible for this charcoal to pass through into the body cavity so as to mix with the blood, as charcoal is non-osmotic, and so cannot be absorbed, and also equally impossible for it to be taken out by the lower head-glands, which must certainly be the case if these lower head-glands prepare directly this nitrogenous food.

It would seem that the glands could hardly secrete all of the nitrogenous food, though it would seem possible that they might secrete enough ferment to digest the pollen and fit it to nourish the larvæ and also the queen and drone. The fact as stated by Cheshire, that only the young workers have these lower head-glands strongly developt, makes it seem more than probable that only the younger bees prepare or digest this nitrogenous food, and thus they supply this food not only to the larval bees, but also to the drones, queen, and older workers.

OTHER GLANDS IN BEES.

Besides the lower head-glands there are the large upper head-glands, and also large glands in the thorax. These all connect with a tube which empties at the base of the tongue just where the nectar enters. It seems very evident that the secretion from these glands mixes with the nectar as it is taken into the honey-stomach. This is the ferment which changes nectar to honey, and makes honey such an admirable food. We can readily understand why these glands are so large. I once fed a colony of bees 19 pounds of sugar syrup. This all had to be transformed, and was in one night. We also know that colonies of bees will often gather under the most favorable circumstances a very large amount of nectar in a single day. It must take a large amount of this digestive ferment to perform transformation in such an extensive way, and thus these glands in the upper head and thorax are so largely developt. These matters are more fully described in my "Manual of the Apiary," and also in Cheshire's book.

There is also some fat in the pollens, or perhaps it would be more accurate to say oil. The oils and fats are the same, tho we usually speak of fat as the material formed in animals, and oil the like material formed by plants. I say they are the same. They differ somewhat, but undoubtedly form the same food element. We do not know what it is that digests the fat or oil of the pollen. We do know that it is a secretion from the pancreas that digests the fats and oils in our digestive economy. It is probable that in the lower head-glands there is also a ferment that does the same work for the bees. We also know that there is in the pancreatic secretion in our own bodies a substance which can and does digest the albuminoid of our food in case it is not done in the stomach by aid of the gastric juice.

Thus we see that in case both the oils and albuminoid of pollen is digested by the secretion of the lower head-glands, the analogy is very close to our own digestion, and we might call these lower head-glands the "pancreas" of the bees. Indeed, we are learning more and more that there is a wonderful similarity in the organic function of all animals. And also that there is very much in common between animals and plants. To me this seems to more than hint that there is a great plan running through all life, and that there must be one great Planner. Is it not more than rational, then, as we study Nature, to have our faith firmly planted on the fact that there is one great God over all, and that His hand is plainly visible in all His works? That is the way I read Nature. Los Angeles Co., Cal.

How to Cure Foul Brood Among Bees.

BY WM. M'EVOY.

Official Foul Brood Inspector for Ontario, Canada.

This disease has destroyed hundreds of apiaries at all times, in almost every land where bees have been kept, and it is to-day making its deadly march uncheckt through the bee-yards of the world.

For 17 years I have warned the bee-keepers to keep all dead and putrid matter out of their colonies, so as not to cause foul brood, and while I have been warning and holding up Death's head and the cross-bones, the professional guessers, who were not practical bee-keepers, have been encouraging the wholesale spread of the disease by saying that rotten brood in hives of bees would not cause foul brood. Such teaching as that has caused thousands of bee-keepers to be very careless, and when the disease has broken out in their bee-yards, it was left to run its course to the ruin of their apiaries, and all others in the same localities. It is only the very few among many thousands of bee-keepers that have succeeded in curing their apiaries of foul brood after it got a good start in their bee-yards, and the owners left to themselves to manage the curing.

I will now give my methods of curing foul brood, which cannot fail when followed exactly as I order.

In the honey season, when the bees are gathering honey freely, remove the combs, and shake the bees back into their own hives in the evening; give comb foundation starters, and let them build combs for four days. In the evening of the fourth day, remove the comb, and give foundation to work out, and then the cure will be complete. Fill an empty two-story hive with the combs of foul brood that have been removed from two or more diseased colonies,close them up for two days, and shade them from the sun; after that open the entrance, and when most of the brood is hatcht, remove those combs, and give the bees starters of foundation in a single hive, and let them build combs for four days. Then in the evening of the fourth day, take out those new combs, and give them foundation to work out.

Let it be remembered that all of these operations should be done in the evening, so that the bees will become settled down nicely before morning.

Before extracting from the diseased combs, all the combs that were not sealed *must be cut out* of the frame, or some of the decayed brood will be thrown out with the honey. Then after cutting out the unsealed comb, uncap the sealed honey, extract it, and bring it to a boil.

All the foul combs, and the new combs that were built in the four days, must be made into wax, and the dross from the wax extractor, *must be buried*, because what runs with the wax would not be heated enough to kill the spores, and if it was thrown out where the bees could get at it, it would start the disease again.

When the diseased brood that was placed in the two-story hive is hatcht and the bees are give full sheets of foundation, then they should at once be given a queen-cell ready to hatch out, or a young queen; then everything will be all right.

The empty hives need no boiling, scalding, or disinfecting in any way, and are perfectly safe to use, no matter how bad the disease may have been in them; and I have always got the curing done in the same hives. But as the frames get more or less daubed with the diseased honey when the combs are cut out of them, I always order the frames burned as soon as the combs are cut out, because it doesn't pay to waste valuable time fussing and cleaning old frames, when new,nice ones are so cheap.

Where an apiary is diseased so badly that the colonies have become weak, then all the combs, both in and out of the hives, should be made into wax at once, and all the colonies doubled up at the same time, as it won't pay any person to waste time with weak colonies.

In some bee-yards I have put three and four colonies in one, to get fair-sized colonies to start on.

When the curing is to be done before or after the honey season, the greatest caution is to be used so as not to start robbing. The curing can be done just as well before as after the honey season by feeding plenty of sugar syrup in the evenings, so the bees will work out the starters of foundation, and store the diseased honey in them, that they took from the old, diseased combs; and when the new combs are removed the fourth evening, and the foundation given, the feeding must be continued to get foundation workt out and filled with plenty of good stores for winter.

When I find apiaries of foul brood at the close of the honey season, I get the queens caged in all the weakest colonies for about ten days, so that no brood can be started to become foul. I then get the owners to take the brood out of the strong colonies, and tier it up on the weak colonies with the caged queens. Then give the colonies starters as soon as the combs are removed, and feed sugar syrup in the *evenings* for four days; then remove the starters for foundation. Then at the end of ten days get all the combs taken from the weak colonies that have the caged queens, and shake the bees into a single hive, give starters of foundation, let the queens out of the cages, and feed sugar syrup in the *evenings*, and remove the new combs the fourth evening for full sheets of foundation, and continue the feeding until all is in good condition. The colonies that were weak when the brood of other colonies was tiered up on them, will be very strong from the quantity of bees hatcht out during the ten days.

I have to use considerable judgment in curing many foul-broody apiaries, so as to make the cure as profitable as possible, and have every colony a good, strong one when the season closes.

It is a very easy thing for one to cure a foul-broody apiary, and soon put it in good order, no matter how bad it was when I started to fix it up in good shape to cure it. But I have found it a very hard thing to handle all sorts of men so that they would cure, and do as I ordered them.

When a few colonies in an apiary are found with foul brood at the close of the season, the owner can very easily fix them up all right by removing the combs in an *evening* in October, when the queens *have done laying*, and giving *sealed* combs from *sound colonies*. If the owner has no sealed combs, he must feed until the bees in the sound colonies seal them for that purpose, and then when given to the foul colony the bees won't have any place to store the foul honey they took from the diseased combs, and then they will have to keep it until they consume it; and with no place to start brood, the queen stopt laying, and cold weather coming on, the bees will have gotten rid of the diseased honey long before brood is started again. Every bee-keeper should have, every fall, plenty of combs sealed over like the best of section honey. I have hundreds of them every fall.

I know of many failures in Ontario where the drug system has been tried, and I have many private letters from several localities in the United States where it has been a complete failure. I never knew one cure made by the drug system, and why any man should speak of it as a cure when it is always a failure, is something I can't understand.

I will warn all men not to waste their time in tinkering with any kind of drugs in a bee-yard; the best place for such drugs would be in the sea—only it might be a sorry time for the fishes.

The D. A. Jones' starvation plan will cure every time, but it is too hard on the bees, and completely unfits them for comb-building for a time, by making the bees very thin, lean and poor; and the starving sometimes almost ruins some of the queens for life. Ontario, Canada.

The Prevention of Swarming.

BY W. P. FAYLOR.

There seems to be a good deal of difference in the traits and habits of bees of different apiaries, and in no respect is this more true than in regard to swarming. I had 30 colonies of bees last summer. Part of those were run for extracted honey and part for comb honey. I did not have a single swarm by Nature's method last year, while a neighbor's bees, but four miles distant, swarmed themselves to death.

In order to produce a non-swarming race of bees it is necessary first of all to practice the artificial method of increase. Where bees are not allowed to swarm for a few generations, they seem to lose the swarming fever, but where they are permitted to have their own way, year after year, each colony will usually swarm three or four times in a single season. Dr. C. C. Miller has allowed his bees to swarm for years, I believe, while the Dadants have practiced the artificial method of increase. Now, what has been the result? We read of the Dadant bees seldom casting a swarm, while our Dr. Miller's swarm right along with the same environment and circumstances. The large, roomy hive is one factor in reducing the swarming mania, but it is not the chief one.

I usually make my increase from colonies that are run for extracted honey, by placing bee-zinc on top of the lower story, and confining the queen below and placing most of the brood and young larvæ in the upper stories. The bees, finding no queen in these upper stories where the chief amount of brood and stores are, will usually build a few queen-cells and rear the very best of queens in this way. It is best to destroy all the queen-cells but one or two of the largest. A few days after the best queen-cell is capt, I lift off the upper story, bees and all, and place this story on a new bottom stand for the beginning of a new colony. By having on hand plenty of empty brood-combs at the beginning of the season, I can take one good, strong colony and increase to eight or ten good colonies in a single season.

With colonies that I wish to run for comb honey I practice the following method: My 8-frame hives are 12 inches wide, inside measure, and this allows for 1½ inch spacing of frames during most of the year, but just at the dawn of the honey harvest I take out the combs and trim down the upper bulges, placing the combs that are fullest of brood and eggs on the outside, and those with honey and little brood, with one additional empty comb, on the inside of the chamber. During the honey-flow, you see, there are nine frames in the brood-chamber, making close spacing of brood-frames, so that the bees will have but little bulging room to store honey in the brood-chamber, and will have to go into the upper story among the sections to find the bulging room.

The next thing I do, I raise the brood-chamber about ⅜ of an inch from the bottom-board, so as to let the cool air circulate through under the brood-chamber. A little piece of common lath placed under each corner of the hive will answer this purpose.

Some 12 years ago I had a very strong colony of bees. They were working grudgingly in the sections above, and were hanging out so as to cover the front and part of the sides of the hive. I had made this colony extra-strong by giving early additional brood. I wanted it to cast one good swarm so as to get some extra queen-cells. They had a nice lot of queen-cells started, and while they were getting ready to swarm I thought they might be induced to go up into the sections by raising the brood-chamber from the bottom-board. I put a little block under each corner of the hive, raising it about a half inch from the bottom-board; and what was my surprise to see these outside bees go into the upper story and crowd the sections. I supposed that the colony would swarm all the same in a few days, but it did not. I waited about a week and no swarm came off. Then I made an examination and found that the bees had destroyed every queen-larvæ and most of the queen-cells. Since then, when I have not wanted any swarming (and I now do not) I always raise the brood-chamber from the bottom-board so as to let the cool air circulate freely through the brood-chamber. This alone will prevent nine colonies out of every ten from swarming. It has prevented a hundred per cent. with me from swarming.

About once a year, for a number of years, I have called the attention of the readers of the Bee Journal to this point, and all that have tried raising the brood-chamber from the bottom-board have spoken of it as having done much to prevent swarming, and also has hurried the bees into the sections.

I am now satisfied that the natural cause of swarming is *overcrowding some apartment of the queen's chamber with bees, brood, eggs, and heat.* This can be demonstrated by using the 5-banded bees. I have sent north, south, east and west for these yellow beauties, for the last ten years, and I have the first queen yet to receive of the 5-banded variety that can produce eggs enough to give a colony of bees the swarming mania. The reason is that there are always empty cells, and no part of the brood-chamber is ever crowded.

Franklin Co., Iowa.

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Selling Extracted Honey—Valuable Secrets.

BY CHALON FOWLS.

When I first began producing extracted honey, 15 or 16 years ago, I could not sell 100 pounds a year in my home market; now it takes from 1½ to 2 tons of honey a year to supply my home market, and my trade is constantly increasing. My success in building up a home market is due, I think, to my methods, which are as follows:

First, the keynote of success in selling honey is to have a first-class article to sell. As nearly all the honey produced in my locality is gathered from basswood and clover, it follows that I shall have the finest flavored and whitest honey in the market, if only the most cleanly methods are employed from the time the nectar is gathered until it reaches the market, just as a like result is obtained by the cleanest and most improved methods in the gathering and handling of maple sap. An examination of the bee under a microscope shows that it is one of the most cleanly as well as the most beautiful of insects, which insures cleanliness in the gathering process (I'm afraid the maple-sap gatherers would hardly bear comparison here). When the bee gets home with its load it must deposit it in a clean receptacle; old combs will not do, neither must the queen be allowed access to the surplus combs, as eggs, larvæ, and pollen result in dirty combs; therefore, the queen is confined in the brood-chamber by means of perforated zinc.

The honey is not taken from the hive and extracted until it is sealed up just like section honey. It is then extracted, and stored in nice tin cans holding about 75 pounds. It will all candy solid, and is liquefied only as wanted for market. When I want to put up some for market, I put one of the cans in a larger can, supported by a suitable frame, so as to leave room under and all around, to be filled with water. The whole thing is kept hot several hours on the stove (a gasoline-stove is the best because slower); but I do not want the water to boil at any time in the outside can. After it is perfectly liquefied, it is put into my filling can, which is provided with a gate. Then I am ready to fill small packages for market.

I use only flint-glass pint Mason jars and third-pint jelly-tumblers for the grocery trade. I never use the green glass when I can get the flint, as the honey does not show up nearly as well. Grocers are requested to place the honey in front somewhere, or on the counters, where the light will strike through it. When a customer sees it shimmering in the sun, as clear as crystal, he is attracted by its beauty, and will buy. I want no showy-colored labels on my honey. I leave that for the glucose-mixers. They want something to plaster over their vile stuff *to hide it*, while I want to show my honey, as it looks finer to a honey-lover than the finest work of art on a label. Lithographs are so common nowadays that people take little notice of them; but any choice article of food, put up in clean and attractive packages, always commands attention; therefore, I use only a small white label, 1x2 inches, giving my name and address, and the words, "Pure Honey." We might get a pointer here from the druggists, who are apt to display clear and sparkling liquids in the window.

I make a tour of the principal towns in my county every two months, or oftener, according to the demands of the trade; and if any of the stock left is beginning to candy, or has become unsightly in any way, it is replaced with fresh goods free of charge. However, this very seldom happens—almost never—except in the case of some little stock that is carried over the summer.

I consider it to my interest that the grocer who handles my honey shall make a good profit—20 to 30 per cent. is none too much on small packages. They should be clast as "fancy groceries," and should bring a better profit than honey in bulk, or sugar and flour. In this way I secure the hearty co-operation of the grocer, which would not be the case if his profits were small.

I sell pint Mason jars at $2.75 per dozen, $30 per gross; third-pints, $1.10 per dozen; per gross, $12. Pints run about 19 pounds to the dozen; third-pints, about 6. Pints retail for 30 cents each; third-pints from 12 to 15 cents each, according to circumstances. But it will be argued these prices are too high, and honey will not be used largely if these prices prevail. I answer that this is for a fancy article in small packages. Do not choice red raspberries in pint boxes sell high? and yet good fruit can be bought cheap in larger quantities, and larger quantities are used, too. Almost any grocer will sell on smaller margin in bulk by the crockful or pailful, as the large packages need no display, and the profit on the large package is as much as on the little one.

I believe bee-keepers ought to push the local trade more. Much might be done by advertising in one way or another.

I sell the most of the honey sold in bulk in my own town, and I find but comparatively few will buy in bulk, altho the price is much cheaper. By far the larger number want only a pint or less at a time. Of course, I do not undersell the grocers on the same size of packages they handle. In soliciting orders from boarding-house keepers and families I prefer to take along my samples in flint-glass Mason jars, and I carry them in a sample case, which allows the light to strike through, just as in the grocery. Even amber honey from fall flowers looks fine if I can get the jars between my customers and the sun; and once people begin to admire its beauty, it's not difficult to get them to taste, which sometimes goes a long way toward making a sale. As I never allow any but my best honey to go in to the grocery trade, I have to work off all my off grades to families, boarding-houses and bakeries. The dark and strong kinds, if I have any, are used for cooking, and recipes are given away with the honey.—Gleanings.

Lorain Co., Ohio.

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What About the Use of Leveled-Down Combs in the Sections?

BY S. A. DEACON.

The man who opposes, by word or deed, the teachings and long practice of such veterans and pastmasters in the art of apiculture as the late Mr. B. Taylor, and unhesitatingly contends that a main feature in that gentleman's system of comb honey producing was altogether wrong, must possess a vast and enviable amount of confidence in his own apicultural knowledge and skill!

Let such as perused in the Bee Journal for Oct. 8, 1896, Mr. Abbott's condemnation of the use of drawn combs in sections, turn back to page 614 of the Bee Journal for 1895, and there read Mr. B. Taylor's emphatic statements regarding the undoubted advantages accruing from their use, as compared with that of starters, or even with full sheets of foundation; they are compared in his essay at the Toronto convention. Perhaps Mr. Jewell Taylor will kindly inform us whether he, or his late father, ever experienced the bad consequences of using drawn combs upon which Mr. Abbott lays so much stress. Their use is greatly favored, and strongly recommended, too, by that expert English bee-master, Mr. Samuel Simmins.

If, as Mr. Abbott affirms to be the case, honey rapidly deposited, as in drawn combs, is liable to either fermentation or granulation, or to both, it would be interesting to know how the Messrs. Dadant overcame the trouble; for their extracting combs not being leveled down, the conditions favorable to fermentation, and, according to Mr. Abbott, for granulation, are, in their case, present in a greatly enhanced degree. And this suggests a question which I would very much wish to have answered by those who, unlike Mr. Abbott, *successfully* use drawn comb, viz.: *How much* should they be leveled down? Or, in other words, what depth of cell should be left? And what was the late Mr. Taylor's practice in this respect? Here again Mr. Jewell Taylor can come to our aid.

What with one set of experts strongly advising one mode of procedure, and another set as staunchly opposing it, the intellects of the majority of the lesser fry naturally get befogged, perplext, bewildered and confused, and, half his time, the tyro "don't know where he are." And when I hear Mr. Abbott saying that the use of drawn combs causes their too-rapidly-deposited contents to *ferment*, and, in the same breath, that it causes them to *granulate*, I feel strongly inclined to ask him, Do he really know where *he* are? Surely, the use of drawn combs cannot be productive of two such chemically opposite results, for the one is due to an excess of moisture, and the other to evaporation of the same.

It may be that the constantly presented conflicting statements regarding matters connected with our calling (and upon which one would suppose there could hardly exist two opinions) has dulled my intellect, and made me somewhat obtuse; still, I venture to think I am not the only one Mr. Abbott's remarks have put in a hole, and that others besides myself would be grateful to that gentleman for a little more precise explanation of his views on this rather important and decidedly interesting matter. What have experiments at Lapeer, Mich., proved "along this line?"—to adopt a favorite expression of our good Mr. Doolittle.

Come, Mr. Doolittle, tell us what *you* know about it. It would be little use, I suppose, asking Dr. Miller's opinion, because he's sure not to know, you know; that medicine man never do know nuffin'—unless, perhaps, it be how to get 10,000 sections of honey!

Then, to "make confusion worse confounded," Mr. Abbott proceeds to tell us that he "had trouble to keep the honey from granulating in the cells." We must assume, then, that he did prevent it from granulating; ergo, altho under the circumstances the honey is *liable* to granulate in the cells there is a means of preventing it, and that, consequently as far at least as *my* intellectual eyesight carries me, all objection to the use of drawn comb is removed.

Mr. Abbott doesn't say *how* he prevented it; perhaps like the canny Scotch engineer who had a plan for relieving the congestion of the vehicular traffic of London, by converting the bed of the Thames into a macadamized road, the *modus operandi* (in the Scotchman's case, of keeping the water *out*, and in Mr. Abbott's case of keeping it *in*) is "a secret he means to keep his ain sel." Did Mr. A. and his hired man sit up all night doing battle with the granulating fiend? or how was it done? I never yet heard of any plan, method or process of checking granulation in comb honey once it had set in; but then I confess I don't know very much about the matter. When I see *extracted* honey going that way I call in hot water to my aid, but I doubt if it would be quite advisable to boil the sections. *Quien sabe?* we are living in a wonderful age, and are daily finding out something new.

Mr. Abbott is an old and experienced apiarist, that we al must admit, and his opinions are, as a rule, entitled to respect; nor can we be otherwise than grateful for the readiness he ever displays to impart the results of his experience to us recruits in the bee-keeping ranks; but until an ecumenical council shall have decreed Abbotts to be as infallible as Popes, or, better still, until we shall have governed the opinions of those veterans whose valuable little pars constitute the contents of the Question-Box column, I, for one, shall keep "an open mind" on this matter of the use of drawn combs in sections.

HONEY PRICES IN SOUTH AFRICA.

I have just received a letter from Mr. F. J. Haarhoff, of Pretoria, Transvaal, in reply to one I addrest him in reference to his statement, which appeared in Gleanings, and was reproduced in the American Bee Journal, to the effect that comb honey was worth half a crown a pound in Pretoria, and which inclined me to the opinion that the ramifications of Horrie & Co. extended to South Africa. But Mr. Haarhoff, who, it appears, is a general dealer and broker—and, for all I know to the contrary, a good and trustworthy one—explains that when he and a few neighbors mustered about 50 colonies between them, which they kept in their gardens, or backyards, they managed to get a few sections from fruit-bloom, and, being then and there somewhat of a rarity, they fetcht fancy prices. "But now," to quote from Mr. H.'s letter, "competition has appeared in the field, and already the price has greatly receded; and very little above the present supply would bring prices still lower." Yes, seeing that Pretoria and Johannesburg together have a population of only about 40,000 whites, I fear a consignment of say 2,000 pounds would make honey a drug in the market. So I trust that no hastener after riches on your side of the big pond, will be induced, on the strength of that "half crown a pound" statement, to send their product across the deep blue sea; for what with freight, duty, brokerage, land carriage and smash, I don't think he would see very much change out of that half crown.

South Africa.

Now for New Subscribers for the rest of 1897: We would like to have each of our present readers send us at least *one new subscriber* for the Bee Journal before July 1, 1897. That surely will not be hard to do, when they will need to pay *only 50 cents* for the rest of this year. That is about 7 months, or only 7 cents a month for the weekly American Bee Journal. Any one with only a colony or two of bees should jump at such an offer as that.

Now, we don't ask you to work for us for nothing, but will say that for each new 50-cent subscriber you send us, we will mail you your choice of *one* of the following list:

Wood Binder for the Bee Journal	20c.
50 copies of leaflet on "Why Eat Honey?"	20c.
50 " " on "How to Keep Honey"	20c.
50 " " on "Alsike Clover"	20c.
6 copies "Honey as Food and Medicine"	20c.
1 copy each "Preparation of Honey for the Market" (10c.) and Doolittle's "Hive I Use" (5c.)	15c.
1 copy each Dadants' "Handling Bees" (8c.) and "Bee-Pasturage a Necessity" (10c.)	18c.
Dr. Howard's book on "Foul Brood"	25c.
Kohnke's "Foul Brood" book	25c.
Cheshire's "Foul Brood" book (10c.) and Dadants' "Handling Bees" [8c.]	18c.
Dr. Foote's Hand-Book of Health	25c.
Rural Life Book	25c.
Our Poultry Doctor, by Fanny Feild	25c.
Poultry for Market and Profit, by Fanny Field	25c.
Capons and Caponizing	25c.
Turkeys for Market and Profit	25c.
Green's Four Books on Fruit-Growing	25c.
Ropp Commercial Calculator No. 1	25c.
Silo and Silage, by Prof. Cook	25c.
Bienen-Kultur [German]	40c.
Kendall's Horse-Book [English or German]	25c.
1 Pound White Clover Seed	25c.
1 " Sweet " "	25c.
1½ " Alsike " "	25c.
1½ " Alfalfa " "	25c.
1½ " Crimson " "	25c.
Queen-Clipping Device	30c.
The Horse—How to Break and Handle	20c.

CONVENTION PROCEEDINGS

Report of the North American Convention Held at St. Joseph, Mo., Oct. 10-12, 1894.

REPORTED BY LOUIS R. LIGHTON.

[Continued from page 358.]

WHAT SHALL WE PLANT FOR HONEY?

Biennials:—

Melilot or Sweet Clover (*Melilotus alba*). The white melilot or Bokhara clover is an excellent honey-plant, yielding from early in July until frost. There are a few plants of this near my apiary and my bees were on them during the whole period of bloom, but especially in July and August when there was nothing else for them. I have purchast a bushel of the seed to sow next spring. The plant sends its roots deep, hence stands drouth well. In the South it is used extensively as a forage crop, for early spring pasturage, and as a soil renovator, while if cut before the stems become woody the hay is excellent. It will thrive on any soil containing lime, and often yields five to six tons per acre when cut two or three times. Even if not desirable, in a given case, to cultivate sweet clover as a forage plant, bee-keepers will do well to scatter the seed in waste places anywhere within a mile of their apiaries, especially where summer pasturage is lacking.

Fuller's Teasel (*Dipsacus fullonum*) yields honey abundantly during the months of July and August, lasting some three weeks. The price of the heads (used by fullers in raising the nap on cloth) is now scarcely one-tenth what it used to be in this country owing to the invention of machinery to do the same work, so that it is doubtful about there being much profit in cultivating it.

Winter Rape (*Brassica napus*) sown in the summer or autumn (according to the latitude) blossoms the following April or May and yields honey abundantly. The seed of the Dwarf Essex variety is now much sought after for sowing to produce autumn or early spring pasturage, especially for sheep, or for soiling purposes. A valuable oil can also be made from it. It is raised extensively in Germany for this purpose, and bee-keepers there secure considerable yields of honey from this, as well as from the annual or summer variety.

Turnips and Cabbages, when planted out to secure seed, furnish an early yield of good honey.

Parsnip (*Pastinaca sativa*).—When permitted to run up to seed this plant is said to yield honey abundantly. Personally I do not know anything about its honey-producing capacities. But one of our honorary members, Mr. George de Layens, of France, places it in the front rank. If his observation is correct, why should not our bee-keepers raise the parsnip seed for the country.

Annuals:—

Crimson clover (*Trifolium incarnatum*). This has been raised most extensively in Delaware and farther south, but may be sown in the spring anywhere in the North. It would surely thrive in Pennsylvania, Ohio and westward, and will grow on light sandy soils too poor to raise other clovers; also on light clay soils, and soils lacking in lime. It is an excellent renovator of the soil, a good forage plant, furnishing good pasturage and a fair crop of hay, while our bees are busy on it for some time—even as early as April in the South when the seed has been sown in August or September.

Japanese or Bush clover (*Lespedeza striata*) is another leguminous plant largely grown in the South for forage and as a renovator of worn soils. It can be raised farther north—surely as far as the Ohio and likely beyond this limit if sown after all danger of frost is past. Moist clay soil seems best adapted to it, but it will grow on very poor land—anything but pure sand—and stand drouth well. The North Carolina Experiment Station says of Japan Clover: "The ability to grow on land too poor to produce even broomsedge, and to crowd out all other plants: its dying each winter and leaving its roots to fertilize the soil; and its possessing the nitrogen-fixing power peculiar to the pulse family of plants, place Japan clover at the head of renovating plants adapted to the climate of Southern States. It is unequaled as a restorer of worn fields, such as are generally turned out to grow up in pines." The extended cultivation of this crop will greatly benefit our agriculturists, and bee-keepers will also derive advantage from it.

Yellow Melilot (*Melilotus officinalis*) and Black Medick or Yellow Trefoil (*Medicago lupulina*) are leguminous plants more often met with in the South than in the North, yet both of which may also be grown almost anywhere in the Union, and will vary from annual to biennial according to latitude. They are honey-plants as well as forage and soil-renovating crops.

Summer Rape (*Brassica campestris var. colza.*) This variety of rape sown in the spring blossoms from six to eight weeks. It is not nearly so valuable as the winter rape for forage, but is raised for its seed and from which a useful oil is exprest. Where the summer heat and drouth are not too great for it, this plant may be made to render good service to the bees, when sown so as to fill the mid-season gap in the harvest.

Melon, cucumber, gourd, squash, and pumpkin vines yield honey all summer, and where some acres are devoted to these the return is considerable. Nor is it a one-sided affair altogether, for the cultivator of these cucurbits is greatly indebted to the bee-keeper for the complete fertilization of the blossoms and consequent productiveness of his vines—a statement which, for that matter, applies to many other crops as well.

Onion (*Allium cepa*) yields honey. No doubt also other plants of the same genus, as for example, Chives (*A. shœnoprasum*) Shallot (*A. ascalonicum*), Garden Garlic (*A.sativum*), and Garden Leek (*A. porrum*). The Wild Leek (*A. tricoccum*) is an abundant yielder, and tho I never harvested honey from any other species or genus, my bees once gathered several hundred pounds of honey from the wild leek, which, tho it had a good body and was rather light-colored, was at first so strong in taste and odor as to be very repugnant, but became after exposure for some days in open buckets quite palatable. Since the leek is one of the strongest of these plants, I judge the honey from the others would also lose any disagreeable qualities it might at first possess.

Buckwheat (*Fagopyrum esculentum*) produces large yields of honey some seasons. The honey is dark and strong-flavored, but is relisht by some. The only caution to be observed by the bee-keeper is not to sow it at a time or in a locality where it would interfere with a yield of light honey. It blooms in about five weeks from the time of sowing, and remains usually about three weeks, or until frost is sown in midsummer. I have found, contrary to the view entertained by some and frequently repeated in print, that it is excellent for winter stores. My bees have wintered on buckwheat honey alone some seasons in a cold climate, too. I would recommend its cultivation in good, rich soil, in localities not likely to experience great drouths with high temperature.

Cotton (*Gossypium herbaceum*) begins to blossom in June, and, tho each flower fades within about three days after opening, others develop successively until late autumn, furnishing, under favorable circumstances, good yields. Unfortunately in those States where cotton growing is followed extensively, apiculture is one of the neglected industries.

Orka or Gumbo (*Hibiscus esculentus*). This plant belongs to the same family, Malvaceæ or Mallow family, as cotton, and the hollyhock, so common everywhere, as well as the abutilons prized as ornaments, all of which are very acceptable to our bees. Okra pods are excellent for soups and stews, and they may be dried and used during winter. If one is located near a city he might raise this extensively and find a market for it. Perhaps the dried product would find a profitable sale if shipt to our larger cities.

Indian Corn (*Zea mays*) yields honey and pollen.

Vetches (*Vicia spp.*),Cow-Pea(*Vigna* [*Dolichos*] (*sinensis*), Lentil (*Lens esculenta*) and Lupines (*Lupinus spp.*) are all leguminous annuals, valuable for forage, as nitrogen-collecting soil-renovators, and for their honey. They are mostly grown in the South, but may also be raised successfully in the North. The Russian or Hairy Vetch (*Vicia villosa*) is the hardiest and has been found the most valuable of all vetches for this country. The Common Vetch (*V. sativa*) is of smaller growth, and may be known by its smooth light-green leaves, with pink flowers, while the Russian vetch has purple flowers in larger clusters, and dark-green leaves which are hairy. What are known as "Winter Vetch," and "Chinese Vetch," are species of *Lathyrus* or perennial peas, valuable as forage-plants, but not to be confounded with true vetches. Honey is secreted, under favorable circumstances by glands located at the bases of the leaves of vetches.

The Cow Pea extensively grown in the South for forage, hay, and green manuring, also yields honey from similar extra floral glands. The Massachusetts and Connecticut experiment stations report favorably on the growth of this crop in the North, but the Kansas station in two of its reports mentions that it did not seem adapted to that locality. Since there are many varieties of cow peas, some of them dwarf, and maturing in two months' time, while others require a long season, and, tho they may produce abundant forage in the North, will not ripen seed there, it is natural that reports should vary. Of their great importance for the South there can be no doubt, and in many localities in the North their value will be equally certain both to the agriculturist and the bee-keeper,

Lentils may be grown North as well as South, and are excellent for fodder, especially for cows. The seeds make excellent soup. These, as well as the vetches and lupines, are much more widely cultivated in Europe than here, and our bee-keepers will do well to encourage their spread among American farmers.

Of the Lupines there are many species, but only three are considered valuable for forage, namely: the white lupine (*Lupinus albus*), the hairy or blue lupine (*Lupinus hirsutus*) and the yellow lupine (*Lupinus lutens*). The lupines are rather woody to make good fodder but may be utilized for sheep. They will grow on very poor sandy lands. Vast barren wastes in Europe have been brought under profitable cultivation by green manuring with lupines. They do not attract our bees as much as many other leguminous plants, but are still worth consideration.

Spurry (*Spergula arvensis*) belonging to the Pink family, is a weed in some places, but cultivated, especially in Europe, as a forage plant, sheep and cattle being fond of it. The stalk grows about one foot high, blossoms white, borne in June and July. Plant prefers sandy soil. According to the Michigan Experiment Station (Bul. 68) this plant has been of great value on the jack-pine plains of that State. At the Oregon Station it yielded (Bul. 4) 20 tons of green forage per acre. One of our European acquaintances, who keeps about 400 colonies of bees, says that this plant yields considerable honey and pollen. This with the testimony from the experiment stations constrains me to place spurry in this list, altho I have made no observations on it myself.

Hemp (*Cannabis sativa*), cultivated for its fiber chiefly in Kentucky and westward and southeastward, is said to be an excellent honey-yielder. Do the bees not get more pollen than honey from it? It is doubtful whether it could be profitably grown much farther north; but its acreage might be much extended in the latitudes mentioned. Why do not the bee-keepers of those regions look to this?

(Continued next week.)

Questions AND Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Swarming—Drawn-Comb—Uniting.

1. I have several hives with the brood-nest fairly full of bees and brood, and with a good supply of honey, but they are doing nothing in the supers; I have a number of combs almost solid full of honey that I took from the hives early this spring; would you advise putting one of these (uncapt) combs of honey in the brood-nest with the purpose of having the bees carry the honey into the super? or would you wait until they begin storing in the super (if they ever do), and then try the above plan?

2. To prevent swarming: A colony swarms with a clipt queen. The combs are taken from the hive and the bees shaken from them; all queen-cells are cut out, and the queen and all the bees returned to the hive. Is it your experience that this will stop the swarming fever? or will they go to work on new queen-cells and swarm again?

3. To start drawn-comb for supers: It seems impossible to get my bees into the supers at all unless supplied with drawn-comb. Do you think well of the idea of putting a frame of foundation outside the division-board in the brood-nest with the idea of having the bees draw the foundation, and then cutting it out and fitting it into the supers?

4. Do you think it safe to unite a queenless colony with one having a queen? Is there not danger of the queen being balled or injured? And if so united, would it be by shaking the bees of the queenless colony from their combs in front of the hive to which they are to be united? or how?

5. Suppose you have a 10-frame hive of bees in good condition, but not working in the supers, and you place under them another 10-frame hive with no bees, but filled with combs of honey. What would be the effect?

WESTERN PENN.

ANSWERS.—1. I don't think I'd do either; that is, I wouldn't put in frames of honey left over from last year with the expectation of having it carried up into the supers. But it may be a good plan to put a frame of honey in the brood-nest, for it isn't the easiest thing to crowd out the queen early in the season by having too much honey in the brood-nest. Very few realize perhaps how much honey is used up in brood-rearing, and it seems to encourage the bees to go more largely into brood-rearing if a large lot of stores is in sight. It will also practically be putting just so much more honey in the supers, for the bees are not likely to store above till the brood-nest is filled.

2. In nine cases out of ten they'll swarm.

3. That's the Oatman plan, and is much practiced by some of the bee-keepers of northern Illinois. It's a good plan, the only objection being the labor involved.

4. If honey is coming in, there's very little danger—less danger by a good deal than if both colonies had queens. You can shake the bees in front of the hive, as you suggest, or, perhaps better, you can quietly place frames and bees in the hive. If you want to be very safe about it, put one hive over the other, leaving a piece of heavy paper between with a little hole big enough for a single bee to pass through.

5. Probably they wouldn't work in the super so soon as if you had not given the frames of honey. If the hive is crammed full, so not a drop of honey can be got into it, there ought to be no difference.

They Will Be Hybrids.

Will a hybrid queen, purely mated with an Italian drone, produce all yellow workers? If so, will they be gentle like pure Italians? E. B.

ANSWER.—No, they'll be hybrids, or, properly speaking, a cross—and may be cross as well.

Ten Interesting Questions and Answers.

1. Do you put sections on as soon as a swarm is hived?
2. How can I keep ants out of my honey-house? It has four pillars or posts set in the ground; tar on them soon gets hard. Turpentine on a narrow strip of cloth tied around them soon evaporates.
3. I want my bees to swarm, but do not want any increase in colonies. How shall I manage them?
4. I use 10-frame dovetailed hives, and work for comb honey. What kind of hives do you use? and what kind of honey do you work for?
5. Do you put sections on before the bees swarm?
6. What is meant by "sealed covers?"
7. Which do you consider the best surplus arrangement for comb honey—the T super, wide frame, or section holder?
8. How many years will a queen do good service in a 10-frame hive?
9. Is 12½ cents enough for honey in a 4¼x4¼x1⅞ section?
10. Which style of frame do you prefer—Hoffman or old-style thick top-bar? I mean in regard to manipulation.

MISSOURI.

ANSWERS.—1. If you put sections on as soon as a swarm is hived, there is some danger that the queen may go up and lay in the sections, unless a queen-excluder is used, so if you don't use excluders it's better to wait a day or two before putting on supers. As soon as the queen gets started laying below, it's all right to put on supers.

2. Try chalk. Some one has said they will not cross a place well chalkt. Powdered borax is also disagreeable to them. You might have pasteboard or tin so arranged about the pillars that you can have a line of powdered borax of considerable depth. You could do as they do in keeping some kinds of worms from climbing shade-trees. They have a sort of dish of tin surrounding the tree, filled with oil. If it had

been planned for in the first place, the pillars could have been set in milk-pans, then you could keep cheap oil in the pans.

3. One way is to proceed much on the ordinary plan, taking pains to prevent all swarms after the first, then uniting in the following spring or early summer down to the desired number. To prevent after-swarms, put the swarm on the old stand, placing the old hive close up to it, then remove the old hive to a new location about a week later. If you want to limit the number still more, put two old hives together, one on top of the other, at the time of setting on a new location. In this case you would have in many cases to remove the hives at a different time from what you otherwise would. It might be that two swarms would be a week apart. Put the old hive of the first on its new stand not later than a week from the time of the swarm, then three or four days later put the other old hive on it. If you want to carry the limitation still farther, you can pile three or four hives together, and extract some honey from the pile. The third or fourth hive added to the pile might have all its bees brusht off.

4. I work for comb honey, and have 8-frame hives. If I had 10-frame hives I should do a lot of thinking before changing to 8-framers, especially if I didn't mind lifting heavy hives. Some of my colonies now have brood in frames 10 or more (sometimes they have brood in 14 frames), but of course they have a second story for that.

5. Yes, sections are usually put on about 10 days after the first white clover blossom is seen. Last year was remarkably early, the first clover blossom being seen May 6. This year is earlier than usual, the first clover being seen in bloom May 24, making the time to put on sections not much after the first of June.

6. A plain board cover of single thickness is now much used, and in the fall the bees will fill all cracks with bee-glue, fastening the cover to the hive with glue, and such a cover thus sealed down is called a "sealed cover."

7. As yet I've found nothing that suits me so well as the T super, but I'm not wedded to that, and when I find something enough better I'll change.

8. Some of them four years, and some of them not four months. Perhaps in general two or three years.

9. That depends altogether on circumstances. Sometimes honey is worth more, sometimes less, and in some places it may be worth more than in others.

10. Neither. I want a frame that is held rigidly in position, but as free as possible from propolis. On account of their wintering qualities, however, I have a liking for closed-end frames.

Foundation Roller—Dividing.

1. How can I keep the foundation roller from smashing through the foundation below the—well, the place where it is fastened?

2. I divided my bees this evening, and as I have only one colony, I am a little anxious as to the result. I put five frames of foundation, one of honey, two of brood, and the old queen in the new hive, and put it on the old stand, and left the rest in the old hive and put it on a new stand. Did I do what was right? They were not building queen-cells, but were getting quite crowded. OREGON.

ANSWERS.—1. I've had no experience in making foundation, and don't really understand the question. Perhaps some of the friends can answer.

2. Very likely all will come out right, altho it is possible you might better have waited a little later.

Transferring Bees and Combs.

How can I transfer my bees from 10½x10½ frame into a Langstroth frame hive? N. Y.

ANSWER.—It ought not to be a difficult matter. Cut a comb out of the frame; cut off just enough to let the comb fit snug in the new frame, then from another comb cut a piece large enough to fill up the rest of the frame. The pieces that are left can be cut off a little shorter, and be used in filling up the next frame. That will leave some little pieces, which it may be as well not to try to use. Take pains to throw out the drone-comb. If you have no other means of fastening the combs in the frame, common wrapping-twine will answer; and if you don't get to it in time the bees will gnaw out the strings. First, lay the strings out straight on a board a little larger than the frame, lay the frame on the strings, fill in the comb, tie, raise board and all so the frame will be in the same position as when hanging in hive, then take board away.

A Beginner's Questions.

1. Is the young queen that goes with a second swarm mated before she goes out with the swarm? I have a second swarm that came 12 days after the first swarm.

2. There are two capt queen-cells left in the old colony which we transferred on the same day the second swarm came—May 26. How long will it be before the young queen will hatch, be mated, be laying?

3. If a swarm has three frames of comb partly filled with honey when hived, how soon must I put on a super?

4. Will a swarm that has all the frames filled with brood-foundation be ready for a super in the same number of days as the swarm that has three frames of comb? KANSAS.

ANSWERS.—1. It is possible that a young queen may be fecundated in the act of swarming, but I think not before. It is nothing unusual for second swarms to vary as to the time of issue, being as late as 16 days after, and when the weather has delayed the first swarm, the second may come perhaps five days after; but the usual rule is about eight days after the first.

2. Very likely the young queens in those capt cells were just about ready to emerge, and the successful incumbent ought to be laying somewhere in the neighborhood of 10 or 12 days later.

3. The only objection to putting on a super at the time of hiving the swarm is the danger of the queen going up and laying in the super. Those combs partly filled with honey will be a more attractive place to lay than the super, so you may as well put on the super at once.

4. Of course there can be no difference, if both are ready for supers as soon as the bees are hived, but if the swarm is hived on foundation it is better to wait until a start is made in the brood-nest before putting on supers, unless a queen-excluder is put under the super.

Will They Swarm this Season?

1. I have a small colony of bees that lost their queen during the winter. May 4 I introduced an Italian queen, and on the 11th I found that she was laying all right. Will this colony be likely to swarm during the summer?

2. I had a very strong colony in a box-hive, and on May 11 I drummed out the queen and a few of the bees, putting them into a new hive (with foundation in all the frames) on the old stand, and placing the box-hive in another part of the yard, intending to transfer them after 21 days to a movable-frame hive. If they rear a queen will they be likely to swarm this summer?

3. Will those on the old stand be likely to swarm? There are a good many bees working from both hives. W. L.

ANSWERS.—1. Yes, if they're strong enough. The changing of the queen makes no difference, in and of itself, only the colony is no doubt much weaker than it would have been if they had had a queen laying right along all spring.

2. They are almost certain not to swarm this summer.

3. No, it is not at all likely that either one will swarm.

New Union and the Bee Journal.—In order to help our subscribers, and also the United States Bee-Keepers' Union at the same time, we have decided to offer a year's subscription to the American Bee Journal and a year's membership dues in the New Union, both together, for $1.75. But it must be understood that in order to get this rate, all arrearages of subscriptions must be paid, and the $1.75 rate to apply on advance subscription.

Now send us your orders, and we will attend to turning over the $1.00 membership fee to the New Union, on each subscription to the Bee Journal as per the above offer. This ought to add 500 members to the New Union by June 1. If it does, our contribution will be just $125.

Now, if you want to see the New Union succeed in its grand work, in the interest of *all* the bee-keepers, come on with your cash. General Manager Secor is just aching to do his part whenever he sees sufficient funds in the treasury to pay the bills.

* * *

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

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Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

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Editorial Comments.

The New Union and Arizona.—Last month the Secretary of the United States Bee-Keepers' Union received the following interesting letter from the Secretary of the Salt River Valley Honey-Producers' Association, Arizona, which speaks most emphatically for itself:

> DR. A. B. MASON, Toledo, Ohio—
> *Secretary United States Bee-Keepers' Union.*
>
> *Dear Sir:*—I enclose herewith draft for $24 in payment of membership fees for the persons named.
>
> At the last meeting of our Association I presented the claims of the New Union, and upon my suggestion it was decided to urge all our shippers to join, and in order that none should fail for the reason of being short of cash just now, we offered to advance the fee until returns are received from the first shipment of honey. The result is 24 names, and I think that I will be able to get a few more.
>
> Whenever the proper time comes I favor changing the name from Union to Alliance or Association. The organization is a long move in the right direction, and I trust that bee-keepers all over the country will rally to its support. If at any time more funds are needed, let me know, and I think we can help you some. Very truly,
>
> J. WEBSTER JOHNSTON, *Sec.*

Now that *is* a leader! What a fine send-off that gives the New Union. And to think that it comes from a lot of bee-keepers who have "gone up *Salt* River" to produce *honey!* Where is the Association that will out-member the above in the New Union? We'd like to mention them. And Dr. Mason would be pleased to hear from them.

Read Mr. Johnston's letter again, and then send in your own membership fee.

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☞ See "Bee-Keeper's Guide" offer on page 382.

Queen-Bees in the Mails.—Mr. C. M. Hicks, in Gleanings for June 1, mentions a very important matter concerning the mailing of queens, and suggests that all the bee-papers pass it along. We are glad to do so. He wrote:

> "A few years ago I got a queen, from a queen-breeder, in a second-hand cage. The candy was put into the wrong end of the cage; and in place of the cork he used a piece of corn-stalk. It must have dried out, or was too small when put in; anyhow, when I took the cage out of the mail-bag, the queen was nearly out. I just said then that I wouldn't have had those bees get out in the mail for a dozen such queens."

It doesn't seem possible that any queen-breeder would be so infernally careless and shiftless as indicated by the above paragraph. As Mr. Hicks says, "queen-bees are mentioned in the Postal Guide as admissible when *properly packt*," and not otherwise. Just such slipshod work as Mr. H. tells about, is what would cause the exclusion of queen-bees from the mails, if anything would.

We trust that if any of our readers have a similar experience to that of Mr. Hicks, they will report the facts to us, with the name of the sender, so that he may be properly advertised, and bee-keepers warned not to patronize him. Any breeder that is guilty of such carelessness ought to be deprived from the use of the mails in every way—ought to be eternally exiled to some small island in the Pacific Ocean.

◆

Why is It so many people are careless about paying their subscriptions for newspapers? Like Dr. Miller, we "don't know." But we do know that not a few who are financially able and responsible permit their subscriptions for the American Bee Journal to get in arrears one, two and even more years if we are willing to continue to send the paper. Recently we cut off a large number of subscribers who were in arrears, simply because we could not bear the burden longer. Some of these were offended, while others said it was all right, and remitted what they owed us. We have subscribers who insist that the paper shall be sent no longer than it is paid for. Others complain if we do this, and intimate that we are heartless. So there you are, and there we are. What is to be done? The best thing for all concerned, for the subscribers as well as the publishers, is to send in renewals promptly, and, if the paper is not wanted, to send us a postal card to that effect. We wish to do what is right, and have no desire to force the Bee Journal on any one. But we do ask those who know they are in arrears to send us the amount due at once, and if possible add the dollar for another year.

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Adulterated Honey.—The Sacramento (Calif.) Record-Union lately contained this paragraph:

> "In a recent address delivered at the National Museum in Washington by H. W. Wiley, the chemist of the Department of Agriculture, he displayed a sample of adulterated honey, which it was claimed, defied detection, and said that out of 500 samples he had purchast throughout the country 60 per cent. were adulterated. The adulterated honey that he showed was one of the cleverest of all adulterations, the manufacturers going so far as to put in remnants of bees' wings, legs, etc., to carry out the fraud. Of course, if the making of bogus honey has been brought to such a point of perfection as the Agricultural Department chemist's statements indicate, it is not going to be an easy task to stop the counterfeiting. Still, unless steps are taken to put an end to the sale of adulterated honey, one of the most important of California's interests will suffer severely."

It seems to us there never was greater need of an organization like the United States Bee-Keepers' Union than right now. What bee-keepers must do *is to get together and stay together* in this fight, if they ever expect to accomplish anything against the adulteration of their product.

There is a great work to be done, and in our opinion there is nothing outside of a big, strong, united association of bee-keepers that will effect anything along the line indicated in the quoted paragraph above. In view of the greatness and importance of the work to be accomplisht, there ought to be a membership of several thousand live bee-keepers secured right away. The objects to be gained are such as all bee-keepers are interested in, and upon which all should unite quickly, and with a determination to do the utmost to win the battle to be waged against the growing evil of honey-adulteration.

Reader, what will *you* do about it? Will you lend your influence and dollar to help in this just cause? It is *your own* fight—entirely in your interest.

◆

Cheap Uncapping-Can.—Mr. J. H. Martin tells in the Rural Californian about an uncapping-can, as follows:

> Mr. R. A. Hitchings, of Los Angeles, who owns a large apiary in Verdugo canyon, and is a practical bee-man, uses two common galvanized-iron wash-tubs. Tub No. 1 is provided with a honey-gate in the bottom, then inside within six inches from the top four stops or braces are soddered, so as to support tub No. 2. Many holes are puncht into this tub both in the bottom and five inches up the sides. There is a little space all around between tub No. 1 and tub No. 2, and the cappings have an excellent chance to drain.
>
> A wooden frame is fitted across the top upon which to uncap. It is easily taken apart to clean, and can be made at an expense of less than $2.00, or according to the size of the tub used. When not in use the whole of it can be covered with a square of cheese-cloth. Let us be neat in our work, and use the Hitchings wash-tub uncapping-cans.

◆

Bee-Hunting in the Okeefenokee.—The Chicago Record, speaking of Florida, says that one of the most remarkable features of the Okeefenokee region is the abundance of wild bees. One of the branches of the swamp bears the name of Bee-Haven Bay, and it is a common saying that every tenth tree is a bee-tree within an area of 20 or 30 miles square.

During the summer months the lake and ponds get very low, and a large portion of the swamp becomes dry land. Then the harvest of the bee-hunter begins. Two men will go into partnership, and, with a scrub steer hitcht to a two-wheeled cart loaded with tubs and kegs, they will start for the swamp armed with their rifles and axes. After the lapse of a week or ten days they will re-appear at the nearest station laden with honey and beeswax and venison hams, which they will dispose of, and, purchasing a fresh supply of bacon, coffee and ammunition, they will return to the hunting ground. For a month or six weeks they will scour the woods until the winter rains set in and drive them back to their log huts on the sand ridges, with a supply of venison and wild-hog meat sufficient for several months, and with a snug sum of money.

The Weekly Budget.

Mr. W. M. Barnum, editor of Colman's Rural World, and an experienced bee-keeper, writing us June 9, said:

"I read the American Bee Journal every week with as much avidity as I did 15 years ago—and it's just as good."

Mr. J. H. Martin, in the June Rural Californian says, in mentioning California honey:

"The quality of honey this year is excellent, well ripened, fine flavor, and white......All through the interior we hear favorable reports, but with the remark, 'It will be a short yield.'"

Dr. C. C. Miller, writing us June 8, said:

"Bees are getting ready to swarm; white clover is opening out in the greatest abundance, but there is very little honey in the hives. The weather has been cold, so they could do nothing, and I'm beginning to feel just a little anxious lest this may be one of those years when clover blooms but doesn't yield."

Mr. F. Bussler, a bee-keeper in Mexico, writing us May 31, said:

"In the exhibition of Cojoacan I got the first prize and $100 cash. I was the only one, and the first one, that ever exhibited things like that here, I think. I have now quite a little trade in hives and bees, and get many letters asking for information."

Mr F. L. Thompson, of Montrose Co., Colo., writing us June 5, said:

"I am running an apiary of 128 colonies on shares. I had a May 16th swarm, too—the day after I got here. So far, 26 colonies have swarmed, tho alfalfa has not yet bloomed to amount to anything. I am extremely busy, but hope to have something to write about later."

Mr. J. D Everett, a 40-colony bee-keeper about 10 miles west of Chicago, called on us last week. He had about 1,500 pounds of comb honey last year from his apiary. He uses the Heddon hive, and wouldn't have any other. Mr. Everett has very little time to devote to his bees, running them entirely as a side-issue. But he some day wishes to increase to 100 colonies. He hives each swarm in one of the Heddon half-brood-chambers, on full sheets of foundation, and then puts the super on at once. He has no trouble about getting the bees into the sections.

"The Van Allen & Williams Honey-Extractor is, I believe, the only extractor on this market that is really an *automatic* reversible machine. By simply slowing up the motion and reversing the direction of the crank, the comb baskets are reversed. The old Stanley machine accomplisht the same thing, but in a much less desirable manner than it is done by the Van Allen & Williams. This machine costs but a trifle more than other reversible extractors, and it should be remembered that to get along without a tool that saves labor is the worst kind of extravagance." So says Editor Hutchinson in the May Review.

Mr. N. E. France—the Wisconsin State Inspector of Apiaries—has begun his work of foul brood investigation, and in a communication dated June 5, says:

"I find many Wisconsin bee-keepers who did not know their bees were diseased, and nearly every case is where they do not take a bee-paper."

That surely speaks well for the work the bee-papers are doing. We have no doubt other foul brood inspectors find the same condition of things. The wise, up-to-date, and progressive and successful bee-keeper will always be found with a good bee-paper in the house—and will read it, too.

Mr. J. T. Calvert, of The A. I. Root Co., writing us June 9, had this to say about the honey crop prospects:

"Mr. A. I. Root has just returned from a trip to Belmont Co., Ohio, and says he never saw white clover any thicker, but lots of honey is going to waste, as bee-keepers have had so many poor seasons they are discouraged and not prepared for it. Those who take advantage of present conditions will get a good crop, and I anticipate a bigger season next year than this, if this season winds up as favorably as it has opened. The conditions all over the country seem to be very promising, judging from reports and orders that come in."

Mr. Gus Dittmer—a successful Wisconsin bee-supply dealer and comb foundation maker, and one of our regular advertisers—wrote us as follows June 7:

"I have had such a rush this spring that something had to be done to meet the June trade. I have succeeded in raising about two tons of beeswax, and now keep two machines going, and I think that I can weather it. I sold as much up to May 1 as all of last year, and now buy sections by the carload."

We are glad to see those prosper who advertise in the Bee Journal. It shows that it pays to patronize our advertising columns, if real help is desired in building up a paying business.

◆

Now is the Time to work for new subscribers. Why not take advantage of the offers made on page 382?

Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Best Style and Size of Sections.

Query 53.—What style and size of sections [please give exact dimensions] do you prefer to use for comb honey ?—Q.

E. France—4¼x4¼x1⅞.

Chas. Dadant & Son—4¼x1⅞.

Jas. A. Stone—4¼x4¼x1⅞ inches.

R. L. Taylor—4¼x4¼, 7 to the foot.

Prof. A. J. Cook—The standard 4¼x4¼.

P. H. Elwood—4-piece dovetail, 4x4½x1⅝.

G. M. Doolittle—3½x5⅜x1⅝, outside measure.

Emerson T. Abbott—4¼x4¼x1⅞, open all around.

J. M. Hambaugh—I prefer the regular 4¼x4¼x1⅞.

Mrs. L. Harrison—4¼x4¼. They hold usually an exact pound.

J. A. Green—One-piece, open top and bottom, 4¼x4¼, 7 to the foot.

A. F. Brown—3⅞x5x1⅝ inches, bottom and top opened full width from side to side.

Dr. A. B. Mason—4¼x4¼ four-piece, but they are more expensive in more ways than one.

H. D. Cutting—It all depends upon what you do with your honey ; 4¼x4¼x1⅞ is a good size.

C. H. Dibbern—I use the whitewood 4-piece dovetail section, size 4¼x4¼x1¾, outside measure.

W. G. Larrabee—Four-piece, 4¼x4¼x1⅞, with top and bottom same width the whole length.

Rev. M. Mahin—I use sections 5x6x1½. But I am not sure but that if I used another style of hive I would prefer 4½x4½x2.

G. W. Demaree—Simply 4¼x4¼x1¾. I would prefer a little larger section if they were as handy to "tier up," but they are not.

Dr. J. P. H. Brown—I use mostly sections 4¼x4¼ : but I can get *more* honey from oblong sections—bee-entrance from the *longest* side.

Dr. C. C. Miller—I don't know. At present I'm using 4¼x4¼x1⅞, but I'm ready to change if there seems sufficient inducement. Possibly 1¾ might be better than 1⅞.

Eugene Secor—I use nothing but 4¼x4¼. I prefer a 4-piece whitewood section to anything I ever used. Width to correspond with style of super ; separators always for fine product.

J. E. Pond—4¼x4¼x1⅞. I use the Simplicity-Langstroth hive, and these sections just fit into the hive. I do not think the style makes much difference, but I should want the sections to hold about 14 to 16 ounces of honey.

* * *

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3.	Bee-Keeper's Guide	1.75
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39.	Bee-Keepers' Directory	1.30

General Items.

Good Honey-Flow.

We are having a good honey-flow in this part of the country, so far. White clover is fine.

J. L. ODEN.

Rutherford Co., Tenn., June 1.

Bee-Outlook this Year.

I have 27 colonies at present. The queens are active, and they have built up well. They have been storing nectar from poplar most of this month, and the last two weeks from white clover. I wi have to extract next week.

W. W. MOUNT.

•Marshall Co., Tenn., May 26.

Hope Blasted.

The spring has proved so unpropitious, and losses so heavy through this section, that many bee-keepers are quite discouraged. The caterpillars are destroying the foliage on the basswood and many other forest trees, and our hope of a large crop of honey is blasted.

JAS. L. GRAY.

Stearns Co., Minn., June 2.

Clipping Queens—Hiving Swarms.

About three weeks ago I clipt one wing of each of my queens, using the Monette queen-clipping device, and it workt fine. I would not keep even a few bees without it. But I was reminded of the old lady's recipe for making rabbit pot-pie. She commenced by saying, "First get your rabbit." But after finding my queen, the rest almost did itself, and I could find them much quicker after a little practice than at first.

About a week after I had my first experience in hiving a swarm with a clipt queen. They came out and clustered just as I came home at noon, and I soon had the queen in the "device" (which, by the way, is just the thing to pick them up with), and by the time I had the old hive on its new stand, and a new one in its place, with full foundation and one frame of brood from the old hive, they broke cluster and came back. I let the queen out, and saw her go in and the bees poured in after her, and all was lovely.

My next experience was with two swarms, that had just clustered together as I came home at noon.

I was expecting swarms from Nos. 1, 7 and 8; I caught my queen in front of No. 7, and without thinking of there

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being two swarms together, lookt no farther, but placed my new hive there as before, but when they broke cluster they came back to No. 1 and commenced bunching in the grass in front. I let the queen go into hive No. 7, and placed a trap in front, and stirred them up at No. 1 in the grass, and caged that queen, and hung her cage upon a limb, and they clustered around her. I placed the two hives close together, with foundation and a brood-frame in each. I then shook the bees in front of both, let the No. 1 queen out, and I saw her go in, and the bees followed with a rush.

I noticed that many bees crost over from in front of No. 1 to No. 7, and *vice versa*, and now I am wondering if each swarm found their own queen. We are having very cold, rainy, backward weather of late, and bees are not doing much, neither is corn, and corn is king here. But we are living in hopes of better days.
H. W. CONGDON.
Cass Co., Nebr., May 31.

◆

Backward Season.

The season is very backward. Bees are beginning to swarm some. There is plenty of clover, and a few days of warm sunshine will improve things greatly.
J. M. YOUNG.
Cass Co., Nebr., June 5.

◆

A Swarming Record.

My bees are having lots of fun with me this year. I aimed to be ready for swarming about this time, and was congratulating myself that they would not get a chance to push me this year, but 11 swarms is the record up to date, and not half of the 16 colonies (spring count) have swarmed yet; they commenced April 30. White clover is now in bloom; fruit-bloom was destroyed by rains.
B. F. ONDERDONK.
Passaic Co., N. J., May 29.

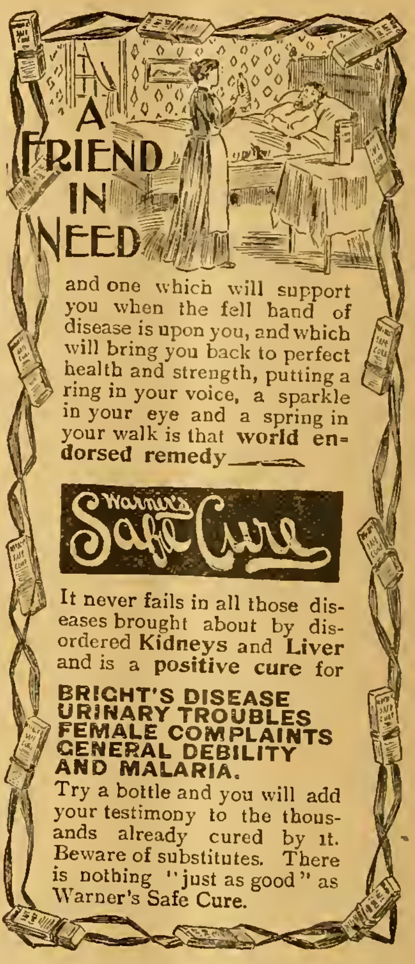
◆

Swarming—Bee-Spaces.

A great deal has been said in the Bee Journal about the swarming fever, how to prevent swarming, non-swarming bees, breeding out the swarming habit, etc. Now I don't want to be enlightened on the subject of breeding out the swarming habit, for I am afraid that would reduce the number of bees to a 0. But what I would like to learn is, how to prevent that big young colony they have built up by depleting the old, or mother colony, from swarming. It is all very plain, that if the old colony is so depleted and weakened that she can't, she won't cast a second swarm. So if you bleed your horse until he is very weak, there is no danger of his jumping the fence.

Our early swarms, without any building up from the mother colony except what they get in natural swarming, are almost sure to swarm about 40 days after hiving them, and generally a second swarm comes off a week or 10 days later. Now I would like very much to know how to prevent this big first swarm from swarming. I want each strong colony to swarm once, but I would like to have them stop swarming right there.

A word about bee-spaces, as that has just been a subject of discussion. One thing that I have not noticed in the "Old Reliable" is, the fact that bees



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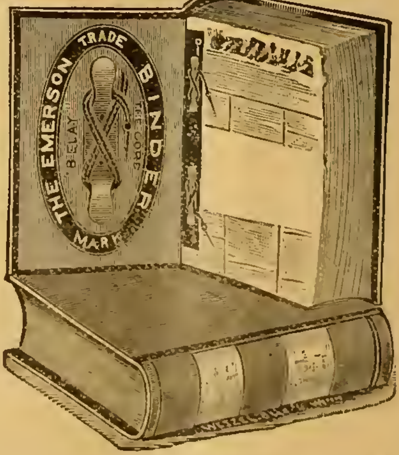
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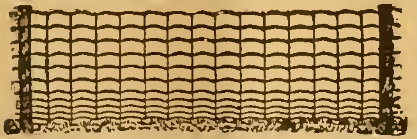

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will keep open every crack, hole or space in the hive large enough for a bee to pass through, no matter whether it is in the front, side or back of the hive, and will glue up every crevice about the hive not large enough to pass through. The same rule applies generally to the inside of the hive, so if the sections rest flat on slats, or anything else, the bees will glue up tight all around the sections and keep open a bee-space in the lower part of the sections. I have had full supers, where the sections rest on slats, that not one of the combs was in any way fastened to the bottom of the sections—a thing that has seldom occurred where there was a space between the top of the brood-frames and the sections. It seems they will have traveling-room either under the sections or through the sections from one to another.

Bees are a small people, but they know how to protect themselves against ants and other small insects, by stopping up every crevice with bitter glue, that nothing wants to eat into. They seem to think that wherever there is space enough for them to go through they can take care of their enemies, and where they can't go through they close it up tight. H. P. WILLSON.

Pembina Co. N. D., May 31.

◆

Expects a Crop this Year.

Bees did well last winter, and came out strong this spring, both in bees and honey. I had 22 colonies, lost one, fine Italian with an old queen. I have had 7 swarms to date, all in good shape. White clover is in bloom. I have acres of sweet clover from one to four feet high, and the public highways are full for miles around. You see I am going to have some honey this year, or quit the business. Last year I took off about 300 pounds. It was a poor location. I changed locations this spring, where I have plenty of pasture till frost closes the season. JAS. W. WILLIAMS.

St. Clair Co., Mo., May 29.

◆

Poor Outlook for a Honey Crop.

Bees have had a hard time for the past 10 days—too cold and windy, and a heavy frost on June 1 did immense damage to fruit and vegetation. Linden buds are about all killed on the few trees that had any—five out of six did not have buds at all. Corn and potatoes are frozen to the ground ; wild and tame fruit are badly damaged ; bees have to be fed, as they are at the starving point. There is no prospect for anything the next two weeks. The outlook for a honey crop is poor. C. THEILMANN.

Wabasha Co., Minn., June 3.

◆

Big Crop Expected.

Southern Indiana never before was covered with such a carpet of white clover as this season ; but cool weather has delayed the flow of nectar enough to prohibit the bees from working in the sections. All bee-keepers report their bees in good condition for honey-gathering, and with warm and favorable weather Vanderburgh county will produce, from present indications, 80 to 100 tons of white clover honey, say nothing of our fall crop from dry-weather honey-vine and fall flowers, as we number about 3,000 colonies. In the very midst of the swarming season I

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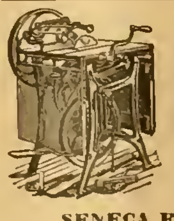

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Bees by the Pound.
E. L. CARRINGTON,
22Atf **De Funiak Springs, Fla.**

had the misfortune to run a large rusty spike through my foot, which almost laid me out. However, my wife attended to all apiary work, hiving 25 swarms. The ranks of bee-keepers are rapidly swelling, many amateurs engaging in the pursuit.
J. C. WALLENMEYER.
Vanderburgh Co., Ind., June 9.

Prospect Not Very Good.

The prospect in this vicinity is not very good; 20 to 30 pounds to the colony is about the average for extracted honey up to date.
G. M. WASHBURN.
Riverside Co., Calif., May 30.

Condition of Bees Poor.

Bees are in poor condition, on account of cold, and the winter loss was heavy, as the honey-flow gave out in July, and most of the bees were short of stores.
C. F. LANG.
La Crosse Co., Wis., June 4.

Bees Doing But Little.

I wintered 115 colonies in single-walled hives on the summer stands without any loss. They are swarming some. Nearly all have commenced work in the sections. There are hundreds of acres of white clover here, but on account of the raw, cold and cloudy weather the bees are doing but little.
J. E. WALKER.
Pike Co., Mo., June 7.

Surplus Crop Looks Doubtful.

Bees wintered well—no loss—and built up early and strong. They commenced swarming May 17. There is plenty of white clover bloom, but the weather for the past two weeks has been so cold and cloudy that but very little surplus has yet been secured. Therefore, our anticipated crop of surplus looks quite doubtful at present.
CHESTER BELDING.
Orange Co., N. Y., June 9.

Right Weather for Nectar-Secretion.

Bees are booming. We have an abundance of white clover, also honey-dew is very plentiful. The sultry weather we are having seems to be just right for the secretion of nectar. By the way, we left a pint bee-feeder on one of our colonies, and failed to put a super on. So the bees took advantage of the feeder, and filled it with extracted honey(?). We think we shall increase this strain of bees in the future!
JOHN NEBEL & SON.
Montgomery Co., Mo., June 8.

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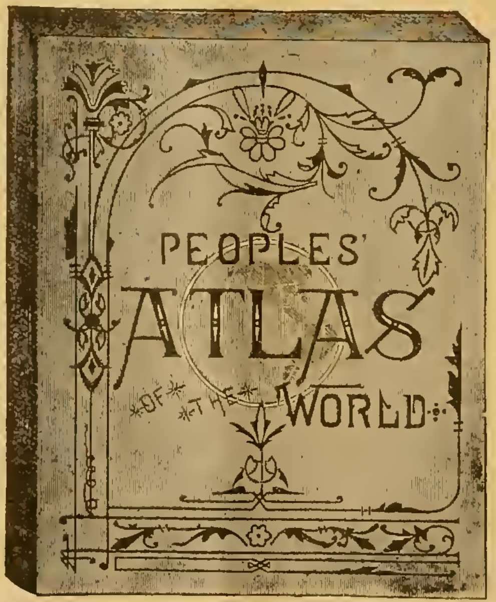
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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., May 6.—There is very little honey coming to the market, and fine lots of white comb brings 13c. Yet only a little is taken by the dealers, the season for it being over with the coming of strawberries, which are now plentiful. Extracted brings about late quotations, with beeswax in active demand at 27@28c. for best grades.

San Francisco, Calif., May 6.—White comb, 9-10c.; amber, 5-7c. Extracted, white, 5½c.; light amber, 3½-4c.; dark tule, 2¾c. Beeswax, fair to choice, 25-27c.

New York, N. Y., May 20.—Old crop is well cleaned up, both comb and extracted, and our market is in good shape for new crop, which is now beginning to arrive from the South. It is in fairly good demand at 50@52c. per gallon for average common grade, and 55@60c. for better grades.

Beeswax is rather quiet at 26@27c.

Detroit, Mich., May 1.—Fancy white comb, 11@12c.; No. 1, 10@11c.; fancy amber, 9@10c.; No. 1, 8@9c.; dark, 7@8c. Extracted, white, 5@6c.; amber, 4@5c.; dark, 4c. Beeswax, 25@26c. Demand is slow for honey, and plenty in commission house.

Kansas City, Mo., May 20.—Fancy white, 12@13c.; No. 1, 11@12c.; fancy amber, 10@11c.; No. 1, 9@10c.; fancy dark, 8@9c.; No. 1, 8c. Extracted, white, 5@5½c.; amber, 4½@5c.; dark, 3½@4c. Beeswax, 25c.

Cincinnati, Ohio, May 7.—Demand is slow for all kinds of honey. Comb honey, 9@14c. for fair to choice white; extracted, 3½@6c. There is a fair demand for beeswax at 22@25c. for good to choice yellow.

Minneapolis, Minn., May 1.—Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 6-7c. Extracted, white, 6@7c.; amber, 5@5½c.; dark, 4@5c. Utah white extracted, 5@5½c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Philadelphia, Pa., May 1.—Fancy white comb, 12-13c.; fancy amber, 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3½-4c. Beeswax, 25c.

Season is getting over for comb honey—very little demand. Extracted in good demand.

St. Louis, Mo., May 1.—Fancy comb, 12@@13c.; No. 1 white, 11@11½c.; amber, 9@10½c.; dark, 7@8½c. Extracted, white, in cans, 6@7c.; amber, in barrels, 4@4½c; extra, 5c.; dark, 3@4c. Good demand for barrel stock—comb slow sale. Beeswax, 23@23½c.—prime flads ready sale at 23½c.

Albany, N. Y., May 1.—Fancy white, 12-13c.; No. 1, 11-12c.; fancy amber, 9-10c.; No. 1, 8-9c.; fancy dark, 7-8c.; No. 1, 6-7c. Extracted, white, 5-6c.; dark, 3½-4c.

Demand is all that could be expected at this season. Stock on hand small.

Indianapolis, Ind., May 1.—Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Buffalo, N. Y., May 28.—The honey season here is about wound up for the present. There are a few stray sales of fancy at 10 and 11 cents, while common is selling at any price, quotable at 9@4c. No extracted of consequence here.

Boston, Mass., May 1.—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

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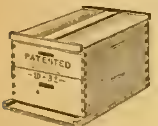

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Contributed Articles

"Advanced" or "Progressive" Bee-Keeping—Drones.

BY S. A. DEACON.

"To Drone or not to Drone: that is the question."

We have most of us, I think, heard of charlatans and magicians, who—the former with their nostrums and the latter with their enchantments, abracadabras, and their general hocum-pocum—profess the ability to rejuvenate old women and men; and in some hitherto inaccessible corner of this globe there is said to be a fountain, or well, of perpetual youth. But, without the aid of empiric, wizard or well, our industry—Bee-Keeping—is always seemingly in its infancy, forever "muling and puling in its nurse's arms."

True, we advance—and so does a crab—in a kind of a way; but our fitful, spasmodic attempts at progress ever bring us back to the position known to statesmen as the *status quo ante*, or, to the drill sergeant as that of "As you were!" We seem, somehow, to get no "forrader," despite all our much-vaunted knowledge and skill.

Can the term, "Advanced Bee-Keeping," or "Bee-Keeping by Advanced Methods," be deemed altogether a justifiable or appropriate one when we hear of veterans—men who are verging on, or have already past, the allotted three-score years and ten—cooking their meals with "modern appliances," and going back to a style of hive and system of management which they unhesitatingly affirm they used and adopted more successfully 35 years or more ago? Can we be said to advance, or our progress be deemed other than crablike, when the long-practiced and highly-approved methods of one set of experts are all at once vigorously denounced by another set—as, for instance, in the matter of using drawn combs in sections—or when such bright apiarists as the late Mr. B. Taylor, pile up their double brood-chamber hives for future use as fire-wood, while Messrs. Hutchinson and R. L. Taylor cannot praise this style of hive sufficiently high; when Mr. Golden starts teaching us that we are all wrong in placing our surplus receptacles *above* the brood, and advocates putting them *under*, thus substituting "subs" for "supers," and adding another word to our already too lengthy technical vocabulary; and when numbers of experienced bee-men, who, years ago, renounced the use of large hives for the production of comb honey, are showing every disposition to abandon the 8-frame hive, and revert to that of 10?

With such divergence of opinion obtaining among the leading lights of our industry on matters of such primary importance, no one need allow himself to be deterred from publicly airing his opinions, or from offering suggestions, which, opposing fixt ideas, may seem the most outre and absurd imaginable. He may even suggest the placing of hives on their sides, hinging the doors, and sliding the horizontally-lying frames in and out like so many drawers, and defy the jeers and cynical taunts of his brother apiarists; for that which is ridiculed or scouted as impracticable to-day in our pursuit is eagerly adopted to-morrow, while a device patented and crackt up to the skies one day, serves to boil the kettle the next.

Thank goodness, there's no such thing as an *Apis*tical Inquisition, as there once was a *Papis*tical one; or, if there were, and with either Dr. Miller, Mr. Doolittle, or the Rev. E. T. Abbott in Torquemada's chair, I greatly fear that my days, like my hives, would be numbered, for the monstrously heretical, amazingly and daringly unorthodox suggestion, or interrogatory, which I am about to place before your readers, and which to save their nerves from too sudden and violent a shock, I have preluded with the above jeremiad, or burden of complaint.

And now to the point—be the consequences what they may! Are the majority of our most intelligent, most observant and most experienced bee-keepers thoroughly convinced that they are standing on firm ground in concluding that the suppression of drones, either by trapping, cutting out drone-comb and otherwise ensuring that there shall be only worker-comb in their hives, is as wise a proceeding as it is generally supposed to be?

What says the Oracle of Lapeer hereanent?

Who was it gave it as his opinion, not so very long ago, that he no longer restricted the breeding of drones in his apiary, convinced that he got as much, if not more, honey than when he trapt them, or prevented their increase? I have forgotten just who it was, but I know it was one of the fraternity whose opinions on most matters pertaining to our pursuit are always respectfully received. He said something, I remember, about the presence of drones stimulating the workers to greater energy, and generally inducing a more prosperous state of the colony—which more than paid for their board and lodging, and fully compensated for their displacement of the nectar-gathering workers. Can it possibly be that we are here on the wrong track, too? and that we are nearing the time when the great makers of "foundation" will be running their works over time to keep pace with the demand for drone-comb foundation?

That's all. Don't be too rough on me; I'm only a beginner, and am always wanting to know, you know. Perhaps the Question-Box might be made to serve us a good turn here—unless, Mr. Editor, you are afraid of the inquisitors! If you will kindly lend the Box for the occasion I would suggest that the matter be put somewhat in this way, viz:

1. Do you think the advantages gained from the elimination of drones to be as great as is generally claimed, or are they over estimated?

2. Are there not in your opinion counterbalancing advantages derivable from their presence in the hive in numbers more approaching to what Nature proportions them, and which we may possibly have overlookt?

3. Given an equal number of colonies, with queens of one age, and all of equal strength, one set with combs of their own building, and hence no restraint as to drone-rearing, and the other set with only worker-combs, and hence incapacitated from rearing drones, what, in your estimation, would be the difference, approximately, in amount of surplus honey harvested?

The question is, Has not Master Drone been unfairly disparaged? Has he not been condemned solely on circumstantial evidence? Must we not reconsider our verdict? Have not our arguments and opinions concerning his *raison d'etre*, and in favor of his extinction, been mere *prima facie* ones? Have we been quite justified in saying that "he is a greedy, useless fellow, away with him?"

The South African Boer, I know, rejoices in the presence of drones, either in his old box-hive or in the hollow old tree. To him they indicate a rich booty, and experience has taught him that a tree-nest containing but comparatively few drones will not repay the labor of felling; but then it must be confest that he is an illogical, primitive-minded, conservative sort of being, and is very prone to mistake cause for effect.

What we want is the actual result, or record, of intelligent observation and experiment "along this line," and I feel sure there are not a few in the front rank of our highly interesting pursuit who can give it, and so set the matter at rest and for aye.

South Africa.

California Notes and Comments.

BY PROF. A. J. COOK.

The white sage of California has now been in bloom for three or four weeks, and is yet one mass of bloom, and will continue so for some weeks to come. The buckwheat has been open for about two weeks, and will remain in blossom until December. These are both excellent honey-plants in Southern California. The black or ball sage is just opening in the canyons, and will from this on furnish a good supply of nectar. The orange-bloom and buckthorn are now out of bloom, but have furnisht, during the last spring, an unusually large amount of sweets for the bees, owing doubtless to the abundant rains of last winter. A leguminous plant, Hosackia glabra, and a rosaceous plant, Horkelia californica, are in bloom here the whole summer, and are always attractive to the bees except when white sage or some other better plants call them elsewhere. This is now my fourth season in Southern California, and I have never in that time noticed the flowers so long in bloom as they have been this year.

CARLOADS OF HONEY.—It is reported that San Diego county will ship 50 carloads of honey the present season. I doubt if that county is proportionally any better than any of the other Southern California counties. All of Southern California, from Santa Barbara to Riverside, and from Redlands to San Diego, is equally fine for honey-production. This season, owing to the copious rains of the past winter, is going to be one of the best, unless hot winds or some other unforeseen evil comes to prevent.

EXTRACTED HONEY.—There are several reasons why California will always produce extracted honey rather than comb. We have a long distance to ship our honey, and the sections are very likely to be torn from the frames, and thus the market seriously damaged. The insects are also quite troublesome in California, especially ants, and for this reason it is more convenient to produce extracted honey, as when that is once in hand there is no longer any danger from ants or other insects. Another thing that urges most bee-keepers to extract rather than produce comb honey, comes from the fact that many are not genuine bee-keepers, and they find it more profitable for unskilled hands to produce honey in the extracted form. It is conceded everywhere that it takes very much less of skill and ability to meet with the best of success in the production of extracted than it does to produce comb honey.

SHIPPING HONEY.—It was my privilege last year to ship several tons of honey. In marketing this large amount, there were only two complaints made by the purchaser. One was that in some cases old cans were used, and the other that the grades of honey were mixt. It is often very convenient to clean old gasoline cans and use them for extracted honey; the fact that such cans can be had for almost or quite nothing, is tempting indeed. I believe, however, that it will always pay to only use clean, new, bright cans. It is also just as important to be very careful not to mix the amber or darker grades of honey with the water-white grades. It requires no little care to keep all of these kinds of honey entirely distinct. By a little attention, however, this can be done, and unless it is, much of the first-class honey, like that from white sage, will sell for less than its real value.

KINGBIRD A FRIEND.—One of our students shot a California kingbird the other day, and found in its stomach several worker-bees. From my knowledge of this student I am sure that the information is authentic. The next day he shot another bird and brough it to me. Although it was shot near the apiary, I did not find a single bee in its stomach. There was one large robber-fly, species of Asilus, and a large number of harmful insects. As is well known, these robber-flies are among our most energetic predaceous insects, and do a great deal of good. It is interesting that the robber-fly is also an enemy to the bees. Only a few days ago a gentleman from Tipton, Calif., sent me one of these large robber-flies, with red legs, saying that he had taken it while it was killing bees. Thus we see that the kingbird befriends the bees by destroying one of their worst enemies, even if it does at times kill the bees themselves. I think on the whole the kingbird is really our friend.

Los Angeles Co., Calif., June 4.

☞ See "Bee-Keeper's Guide" offer on page 382.

To Help Stop the Adulteration of Honey.

BY C. P. DADANT.

It looks now as if it were impossible for the two Bee-Keepers' Unions to unite, as their leaders evidently disagree. This is much to be regretted, for "in union is strength." We must, however, do the best under the circumstances, and try to make both of these associations useful to the general bee-keeper.

It appears that the new association is likely to undertake the prevention of adulteration of honey, which the old Union has considered out of its scope. If this is done, and done properly, both of these associations may live and be useful.

In an editorial in Gleanings for May, Editor Root recommends that the New Union take steps to procure pure food laws, beginning with the State of Illinois, and recommends that Mr. Stone and myself be sent to the State Legislature to button-hole the members so as to obtain the passage of such a law. Mr. Root has evidently more faith in my capacity as a lobbyist than I have myself, for I would make a sorry politician.

But let me ask, Is it really necessary to have more laws than we now have to prevent the sale of glucose under the label of honey? Can a man sell you salt for sugar, or dust for pepper, garlic far onions, or silver for gold, with impunity? If so, we are not a civilized race, and all the vaunts of the so-called progressive men are empty bubbles.

I am not a lawyer, and perhaps my reasoning goes astray, but, in my opinion, we need less laws than action. If, with the present existing laws, we were to cause an examination and analysis to be made of the honey sold by suspicious firms, and, upon evidence of adulteration, if we were to give them a notice that they must discontinue to proffer such goods under the name of honey; if we were to sue them for selling glucose under the label of a better article; if we were to give notice to the buyers, especially the small dealers through the country, that the adulterated goods of these firms would be followed, and the sale of them prevented by suits—I believe that we could, perhaps not do away altogether, but decrease the sale of these goods to such an extent that no damage would any longer be done to our industry.

I have seen adulterated honey on the counters of some of our grocers here at home. After I told them that it was not pure they discontinued buying it. Yet there was evidently some profit in it for them, for they could sell it at a price that would destroy the competition of pure honey. But these men were honest, and did not wish to knowingly sell a spurious article. Two or three wholsesale firms, in Keokuk, Iowa, kept this adulterated stuff. If I had been able to go to them with a statement of analysis of the honey, or rather of the glucose in question, backt by a Bee-Keepers' Union well organized and ready for a fight in the interest of its stockholders, it is my opinion that I would have had no trouble in getting these folks to drop the handling of those goods.

There are scoundrels in this world, but there are plenty of men who will not support a fraud if they know it to be a fraud. The majority is honest. If it were not so, the laws would be made in the interest of the dishonest. What we need more than anything else is publicity and information that will enlighten the public. Do not tell me that the people like to be humbugged. They do not, but in many cases they are unable to judge for themselves.

Such is the case with honey. Too many people still think that to be good, honey must be liquid, and pass judgment more upon the looks than upon the taste of what they buy. That is why fraud is so easy in the honey line. The consumer helps the swindler. But the consumer can be enlightened and made to discern the true article. It takes some time, it is true, but if we strike at the root, by informing the middleman, in an equivocal manner, we will soon succeed.

What if we pass a pure food law, supposing that our legislators cared for it enough to accede to our requests! We would still have to see that the law was enforced. Let us go at it now and see that the present laws are enforced. I believe we have enough to serve our purpose.

Of what use is a law that is not enforced? To what purpose is the liquor law, in most cities of Iowa? But whenever the people are so educated that they wish it, the evil will soon be stopt. So it is with adulteration. Let the bee-keepers once decide that it must be stopt, and it soon will be.

Hancock Co., Ill.

Cheap Uncapping-Can—Fumigating Honey.

BY C. DAVENPORT.

Soon after commencing to extract honey last season something like a large uncapping-can was found to be so much of a necessity that we could not wait the time that would necessarily elapse before we could send and get one, so one was made which answers every purpose as well as one that could be bought—in fact, I believe better, for being larger it will hold more cappings, and will probably last longer than one made of tin. It cost $1.50, and about one hour's work to make it. As those offered for sale cost $7.00, I saved $5.50, besides what the freight would have been. As there are probably some who will need one the coming season, and who, like myself, are not adverse to saving a few dollars when possible, I will tell how mine was made:

An alcohol barrel was sawed in two, so that one part would be about as long again as the other. The head was removed from the end of the long part, and wire-cloth fastened over this end; the wire-cloth used being large enough so that it would fold up a few inches all around the outside to fasten it. The second hoop was removed, the wire-cloth placed on, and the hoop then driven back over it as far as it would go. A number of small holes were made through the iron hoop, and tacks driven in them through the wire-cloth and into the wood of the barrel. This part was then set, or telescoped, into the other part of the barrel, as far as it would go, which left room enough between the wire-cloth and the bottom to hold all the honey that would drain through when the upper part was filled with cappings. A molasses gate was put in the lower part to draw off the honey, and a light frame-work made of planed lath was placed over the top to support the combs while uncapping them.

For a cover, when not in use, a large piece of cotton-cloth and a wooden hoop large enough to slip over the cloth and upper part of the barrel and hold the cloth in place was used. No stay or support was used between the wire-cloth and the bottom of the barrel, nor did it appear that one was necessary, for the upper part has a number of times been full of cappings and broken comb honey, and the wire bottom held all right.

SULPHURING COMB HONEY.

Sometime ago I described my method of sulphuring comb honey, and there was some comment made because I did not give the exact amount of sulphur and length of time required to kill the moths. The amount of sulphur to be used would vary with the amount of honey sulphured at the one time, and the time required would also vary somewhat, depending upon how tight the supers fitted together, and as to whether it was done in-doors or out-doors.

To kill moths in surplus comb honey without injuring its appearance or flavor, has been with me one of the most serious problems connected with bee-keeping, and last season a bee-keeper drove nearly 40 miles to see me on account of moths. He said they had already destroyed over $50 worth of honey for him, and he was afraid they would ruin all he had, for he said it was impossible for him to sulphur honey long enough to kill the moths without coloring it, either by the method I had described or by putting it in a tight room and burning sulphur.

After moths get to be one-third of an inch long, and as large around say as a small knitting-needle, it is impossible to kill them with the fumes of sulphur without coloring the honey, either in a room or box. When, and for a short time after, moth-worms first hatch, they are very small, and can then be very easily killed by the fumes of sulphur without coloring the honey in the least; and if filled sections, after they are removed from the hives, are neglected until moth-worms of the size mentioned have developt in some of them, I believe the best thing that can be done is to carefully look them over and put those infested in supers by themselves, and then put these supers on hives containing strong colonies of Italian bees, and they will soon clear them of moths. If at the time this is done no honey is being gathered, care should be used to select colonies that have plenty of stores in the brood-chambers.

Last summer I practiced a somewhat different method of sulphuring honey. I got the idea from an article in the American Bee Journal. Instead of burning the sulphur by means of a lamp and iron plate, I used pieces of cloth dipt in melted sulphur. The cloth was prepared by melting sulphur in an iron kettle, and when it was nearly boiling, long strips of thin cotton-cloth were dipt into it, and then laid on a board to cool. In sulphuring the honey I used a box, and set the supers on top, as before described.

The advantage of this cloth over a lamp and iron plate is, that it is much quicker and easier to use, for when a piece is set on fire by a lighted match, it burns steadily with a dull flame until the sulphur is all consumed. That is, it will if the sulphur was hot enough when the cloth was dipt into it. With a lamp it takes some time to heat the plate hot enough to set fire to the sulphur, as it has to melt before it will burn.

As it takes but a small piece of this cloth for a hundred pounds or more of honey, one can prepare enough of it in a short time to sulphur tons of honey. It will be just as good months, and probably years, after it is made, if kept dry. It is immaterial whether sulphur or brimstone is used, as brimstone is melted sulphur. Southern Minnesota.

Foul Brood Treatment—Further Information.

BY WM. M'EVOY.

Official Foul Brood Inspector for Ontario, Canada.

In my last article (see page 370) I said the dross from the wax-extractor *must be buried*. Since then Mr. Gemmill has written me, saying that I should have said the dross from a *solar* wax-extractor. He says the dross from foul-broody combs that were *boiled* would be all right, which is very true, and I am very thankful to Mr. Gemmill for noticing that I had not explained what I meant. I meant the dross from all steam wax-extractors, but forgot to say so, and explain why the dross from them must be buried.

If foul-broody combs are put in a steam wax-extractor, the honey will run out into the wax-pan, just as soon as the steam warms the honey in the combs, then as fast as the steam melts the combs the wax will run into the wax-pan.

The common practice with the most bee-keepers and their wives, after lifting out the wax to heat over and run into cakes, is to throw out the dross and honey that was in the bottom of the pans; if the bees get at such honey, and take it to the larvæ, *it will start foul brood at once with a vengeance*, because the honey got but very little heat that ran into the wax-pan.

I want to give a little advice to the farmers that have foul brood in their bee-yards.

If you have 10 or 15 colonies afflicted with foul brood, I want you to prepare things in good shape through the day, by putting the comb foundation starters in the frames, thus getting all things ready. Then go, about sundown, with a *good* smoker, *well going*, and blow smoke into the entrance of every hive near the ones you are going to remove the combs from and fix up. Then stand to one side, or the back of the hive, so the bees can see the entrance of their hive, and as soon as you have smoked the colony well, remove the combs and shake the bees right back into the *same hive*, and give them comb foundation starters, which you will remove the fourth evening, and give full sheets of comb foundation.

If no honey is being gathered by the bees at the time, *you must feed plenty of sugar syrup in the evenings or your bees will swarm out and mix in with your sound colonies and ruin them.* If you have no feeders, use small bread pans, or anything of the kind. Pack them full of straw, then fill them full of sugar syrup, and put them on the frames *in the evenings*; by doing that the bees will rush into the feed, soon work out the starters, and store the foul honey in them that they took from the foul-broody combs when you removed them.

The fourth evening, when you go to remove these nice white combs (and see what a lot of combs the bees made in such a short time in the honey-flow, or by booming them with sugar syrup), don't leave them in, thinking it all right because they look so pretty. *You must remove these new combs that were built in the four days because they will have the deadly honey in them*, and you must melt them into wax.

When you remove the old, foul combs, if they are very bad, make wax of them at once; but if your colonies have only a little foul brood in them, and a large quantity of good brood, you can make it pay to save it, if you are a careful man, by following the directions I gave in my last article.

Some of you will say, "I have no sugar. Can't I feed the honey from the foul combs if I heat it?" Yes, you can, if you will mind me; but I do hate to trust you, because I know how careless you are. If you are determined to feed that honey from the foul-broody combs, put about half water in it, and bring it to a *sharp boil* before you feed it. I never advise the feeding of foul honey, heated by men of no experience, because it is too deadly a thing for greenhorns to tamper with.

In localities where little or no honey is being gathered by the bees when they are put on foundation starters, they will in some cases swarm out if the queens are not caged. Cage all the queens, and keep them caged while on the starters, and for two days after they are put on the full sheets of foundation, to prevent swarming out; and feed an abundance in the evening; by doing that, all will work like clock-work.

Now, farmers, I beg of you to mind me, and do not put off this work until some morning when your crops are so wet that you can't do anything else, and then go and stand with your two feet right in front of the entrance to the hives, and then commence removing the combs and shaking part of the bees in the hive and the rest on the ground, thus causing the bees to mix into every colony in your bee-yard, to ruin all.

If you have the disease in 10 or 12 colonies, don't tinker with them and lose all by doing one or two in a week, and then in a week after doing two more, and then scatter the bees about so that they rush into the cured ones that you did the week before, and thus get the disease back into them again. Do the whole 10 or 12 in one evening. If you can't do that, don't be more than two evenings at a small lot like that.

Burn all frames as soon as you cut the combs out of them, because it won't pay you to waste valuable time in scalding and fussing with old, daubed frames, when nice new ones are so cheap. Make wax of the combs just as soon as you cut them out of the frames.

If your apiary is badly diseased, don't, under any consideration, save even one comb either in or out of your hives. Remember if you do, it will start the disease again.

Don't waste your time in boiling, scalding, disinfecting any empty hive that had foul brood in it; the empty hives are perfectly safe to use in any way you wish without doing anything with them. I saved many wood-piles, and the people from a world of labor, by forbidding the boiling and the disinfecting of empty hives that foul brood had been in.

While on my rounds through Ontario the first summer, I found the bee-keepers everywhere ready, and very anxious, to boil and disinfect all empty hives that foul brood had been in. I could have very easily traded upon the ignorance of the people, by advising them to do so, which would have been a very unjust thing for me to do—to cause the bee-keepers a terrible lot more work, and waste their valuable time and wood-piles in boiling empty hives that foul brood had been in. I had not the heart to do it, and lookt on it as little short of crime on my part, if I did not forbid it. I forbade it everywhere, and the people are loud in my praise for saving them from a lot of useless work. I always told the bee-keepers that there was no more reason for scalding empty hives than their was for scalding the bees that were full of the deadly honey when they were put into the hives after the rotten combs were removed.

Ontario, Canada.

Now is the Time to work for new subscribers. Why not take advantage of the offers made on page 389?

Nebraska Notes and Comments.

BY J. M. YOUNG.

OUT-APIARY.—We are starting an out-apiary with only a few colonies, just to see how and what success we have.

WHITE CLOVER is almost in full blast now, of which there is plenty in this locality, but there has been so much cold weather that bees do not more than get a good taste from it.

USING SEPARATORS.—We are using separators on all our hives this season, having come to the conclusion that nice, salable honey can't be obtained otherwise.

BASSWOOD AND CLOVER.—The prospects for the basswood bloom this year is very good, and the white clover coming in earlier (some two weeks) than the linden, will make a continuous honey-flow, much longer than usual.

EMPTY COMBS.—Those who are just starting in bee-culture should look after all empty combs now, for the moth-worms will get into them, and in a few days will entirely ruin them. When I have empty combs not covered by bees, I usually place them about two inches apart in the hives, or wherever they are. In some cool, dry place is best to keep them, if such a place is at hand.

KEEPING OUT MOTHS.—I am often askt how I keep the moth out of my hives. That is not hard to do. I often say the whole secret is in having good, strong colonies, and a hive brimful of bees. The moth-worms have no show in such a stronghold.

A WELCOME VISITOR.—The American Bee Journal comes as regularly on every Thursday and as certain as the sun rises, and is always a welcome visitor in our household.

SLOW SWARMING.—Bees are slow to begin swarming in this locality; only three swarms to date in my home yard.

Cass Co., Nebr., June 11.

Now for New Subscribers for the rest of 1897: We would like to have each of our present readers send us at least *one new subscriber* for the Bee Journal before Aug. 1, 1897. That surely will not be hard to do, when they will need to pay *only 40 cents* for the rest of this year. That is about 6 months, or only 7 cents a month for the weekly American Bee Journal. Any one with only a colony or two of bees should jump at such an offer as that.

Now, we don't ask you to work for us for nothing, but will say that for each new 40-cent subscriber you send us, we will mail you your choice of *one* of the following list:

Wood Binder for the Bee Journal	20c.
50 copies of leaflet on "Why Eat Honey?"	20c.
50 " " on "How to Keep Honey"	20c.
50 " " on "Alsike Clover"	20c.
1 copy each "Preparation of Honey for the Market" (10c.) and Doolittle's "Hive I Use" (5c.)	15c.
1 copy each Dadants' "Handling Bees" (8c.) and "Bee-Pasturage a Necessity" (10c.)	18c.
Dr. Howard's book on "Foul Brood"	25c.
Kohnke's "Foul Brood" book	25c.
Cheshire's "Foul Brood" book (10c.) and Dadants' "Handling Bees" [8c.]	18c.
Dr. Foote's Hand-Book of Health	25c.
Rural Life Book	25c.
Our Poultry Doctor, by Fanny Feild	25c.
Poultry for Market and Profit, by Fanny Field	25c.
Capons and Caponizing	25c.
Turkeys for Market and Profit	25c.
Green's Four Books on Fruit-Growing	25c.
Ropp Commercial Calculator No. 1	25c.
Silo and Silage, by Prof. Cook	25c.
Bienen-Kultur [German]	40c.
Kendall's Horse-Book [English or German]	25c.
1 Pound White Clover Seed	25c.
1 " Sweet " "	25c.
1¼ " Alsike " "	25c.
1¼ " Alfalfa " "	25c.
1¼ " Crimson " "	25c.
The Horse—How to Break and Handle	20c.

We make the above offers only to those who are now subscribers; in other words, no one sending in his own 40 cents as a new subscriber can also claim a choice of the above list.

CONVENTION PROCEEDINGS

Report of the North American Convention Held at St. Joseph, Mo., Oct. 10-12, 1894.

REPORTED BY LOUIS R. LIGHTON.

[Continued from page 374.]

WHAT SHALL WE PLANT FOR HONEY?

Plants for Ornament and Honey.

Most bee-keepers will want ornamental plants, shrubs, or trees about their homes, but if they should not happen to feel interested in this direction their good wives surely will. It is well to select plants which yield honey, for, tho it may frequently happen that the amount collected from them will be but "a drop in the bucket," so to say, yet the satisfaction of seeing the bees busily at work on them will be worth considerable, and in many instances the pollen obtained by the bees will be of great value in furthering the rearing of brood—particularly, early in the season. The list from which we may choose is very long. I can merely mention a few of the best, all of which may be obtained from leading seedsmen or florists, who will also give hints as to their culture, or from whose catalogs such hints may be obtained. In some instances a trial having shown the adaptability of a given locality to some one of these plants and the requisite management to bring success, it might be grown on a large scale for its seed, and fine crops of honey obtained at the same time.

Perennials:—

Red-bud (*Cercis canadensis*), a small tree very ornamental in early spring, when it is covered with blossoms before the leaves appear, in February and March in the South, and April and May in the North. The blossoms are like those of the peach, but redder. Bees are very busy on them, getting both pollen and honey.

Willows (*Salix*) are ornamental along streams or ditches and keep the soil from washing out. They blossom very early, furnishing honey and pollen—an important stimulus to brood-rearing.

The true Poplars (*Populus*) also yield pollen very early in spring, and some of the varieties are planted for ornament.

Red or Soft Maple (*Acer rubrum*, Silver Maple (*A. dasycarpum*), Hard or Sugar Maple (*A. saccharinum*), Birch (*Betula*) and Elm, (*Ulmus*), all valued as ornamental and timber trees offer important stores of pollen and honey to our bees in early spring.

Tulip Tree or Whitewood (*Liriodendron tulipifera*) is a stately ornamental tree that should be more often planted where it is not abundant. Its large tulip-shaped greenish-yellow blossoms secrete much honey in May or June. Its wood is also valuable.

Linden or Basswood (*Tilia americana*) blossoms in June or July in various latitudes. It is widely distributed, yet as many localities are without it, planting and distribution of seedling trees is to be recommended. Several of the avenues of our capital city, Washington, have been lined with these trees and the parks contain others, so that, while bees in surrounding localities are accumulating nothing, those within the city often store fifty or more pounds of beautiful honey. The linden is a rapid grower and the wood is useful.

Locust (*Robinia pseudacacia*) is another rapid-growing tree whose timber is valuable, and which is often planted as a shade and ornamental tree. It is frequently attackt by insects, much inclined to spread by suckers, and withal is not a very handsome tree, but its pendant racemes of yellowish-white blossoms, which appear in June, are very fragrant and furnish our bees for a short time with a good harvest of beautiful honey.

Hardy Catalpa (*Catalpa speciosa*) is a beautiful tree which will thrive in the Middle States and westward though very likely not in the colder northwest. *C. kæmpferi*, a Japanese species, also does well. In the South, *C. catalpa*, *Linn*, is frequently planted, its large leaves and white blossoms in panicles making it very attractive. All yield honey.

Hawthorn, White Thorn (*Crataegus spp.*) may be used as ornament or for hedges. Yield an abundance of white honey of fine flavor. There are many species, both native and introduced, but the majority are not hardy in the North.

Sourwood or Sorrel Tree (*Oxydendrum arboreum*), a great producer of excellent honey in Kentucky and Tennessee. Might well be planted elsewhere—even much farther north. It is a handsome tree.

Magnolias (*Magnolia grandiflora* is half hardy in the Middle States; *M. acumindta*, the Cucumber Magnolia, and *M. cordata*, the Yellow Cucumber Magnolia, are hardy species. Beautiful, showy, the first species ever grown.

European Horse-Chestnut (*Aesculus hippocastanum*) is a stately shade tree whose flowers in May yield much honey and some pollen. There is a variety with white and also one with rose-colored blossoms. Both are to be highly recommended being very ornamental and hardy everywhere.

Yellow-wood (*Cladrastis lutea Koch*) with its fragrant creamy-white flowers hanging in panicles a foot or more long in May or June, forms an attraction on the lawn. It yields much nectar.

Buckthorn (*Lycium barbatum*) is an excellent hedge-plant whose blossoms yield honey and pollen for the bees. It may not be hardy in all situations. Western bee-keepers would do well to ascertain this before planting it extensively.

Matrimony Vine (*Lycium vulgare*) belonging to the same genus as Buckthorn is also highly appreciated by the bees. It blossoms all summer long and is covered with bees from early until late. Nothing can be more graceful than its lithe recurving stems which are easily trained over lattice-work. The blossoms are small greenish-purple followed by red berries.

Spanish Broom (*Spartium junceum*) a leguminous shrub cultivated for ornament yields honey very abundantly.

American Wistaria (*Wistaria frutescens*) and Chinese Wistaria (*W. sinensis*) are highly ornamental climbers which are favorites with the bees. Give them a protected sunny situation.

Rosemary (*Rosmarinus officinalis*) of the Mint family is an immense yielder of exceedingly fine honey. The honey of Narbonne, so famous in the Parisian markets, is said to come from rosemary. During two winters which I past in Tunis, North Africa, the hills were blue with the fragrant rosemary, and tho the bees were black as night and sometimes cross, they reveled in this royal flower and weighted their hives with its delicious nectar. Unfortunately it is not hardy in the North, but I hope some of our Southern friends will try it, and that it will not be overlookt in Northern flower gardens.

White Alder (*Clethra alnifolia*) presents its sweet-scented spirals of fine white blossoms to the bees in August. It is a shrub three to ten feet high which thrives best in low places.

Alpine Heath (*Erica carnea*) blossoms in earliest spring and yields much honey and pollen wherever abundant. It is said that the Austrian province of Carniola took its name from this plant. Be that as it may, it is certainly everywhere there, and its bright pink blossoms appear in large areas on the sunny sides of the valleys long before the snow has disappeared from the opposing side or the clefts of the rocks near at hand. It will therefore withstand the winters of our Northern States, and, while worthy of cultivation in the flower-garden an effort might be made to get it started wild over hill and mountain sides, to greet the peaceful Carniolan bees that likewise hold their own in our severe Northern winters.

Heather or Ling (*Calluna vulgaris*) is common in the north of Europe and is one of their great honey-plants. It has become sparingly naturalized here in the extreme northeast. Blossoms in summer and lasts through September.

Alpine Rock Cress (*Arabis alpina*). Before any other plants show signs of growth in spring—even before the crocuses, the stems of this beautiful hardy plant appear above its light-green foliage, bearing numerous white and very fragrant flowers which are eagerly visited by our bees. A small area yields them much honey, tho little or no pollen. It remains in bloom some weeks, or under favorable circumstances even until autumn, and being a thoroughly hardy perennial it is well worth the little care which it takes to preserve it through the summer.

Crocus (*Crocus vernus*) so well known is one of the very early spring flowers which our bees take advantage of. The bulbs may be placed in the lawn or along the edges of beds, anywhere, in the autumn, by making a hole three inches deep, slipping them in and pressing the earth over them. They will delight the eye for many successive seasons thereafter—not only of the bee-keeper but of his bees as well, since they furnish much pollen and some honey.

Black Hellebore or Christmas Rose (*Helleborus niger*) flowers in winter in mild climates, hence its name. Tho not often seen in gardens it might grace the bee-keeper's dooryard, and yield his bees its aromatic honey and pollen.

Stock or Gilliflower.—The Common Stock (*Mathiola incana*) tho not hardy in the North, may be sown in pots indoors early in the season and the latter set in beds for the summer.

Wallflower (*Cheiranthus cheiri*) in the milder portions of our country will live outside and will bloom very early in the spring; elsewhere it may be grown in pots to be set out in spring. Both pollen and honey.

Common Periwinkle (*Vinca minor*).—Hardy, trailing, produces pretty, blue flowers in early spring and will thrive in a shady situation. Yields honey.

Abutilon or Flowering Maple may be grown from the seed started early, in the house, and set out when settled weather comes, and will flower the first season continuously; also during winter if taken up. It furnishes the bees honey and pollen.

Althea, Tree Hollyhock, or Rose of Sharon (*Althaea rosae*), a fine, majestic shrub bearing a profusion of showy white or red blossoms the size of hollyhocks, and which are much frequented by the bees for honey and pollen, both of which are produced by it in great abundance. A bee often fills its honey-sac from one blossom. Once establisht this plant will last for many years.

Bush Honeysuckle (*Diervilla japonica*) is not only a beautiful ornament for the lawn, but is a favorite with the bees, yielding them honey in July.

European Pennyroyal (*Mentha pulegium*) is quite different from our common wild pennyroyal, blossoms during July, August and September, yielding honey freely. Its mass of bright green foliage, and the fact that it will grow in shady places, make it very suitable for rock work or use under trees.

Cobæa scandens.—A rapid and very ornamental climber often cultivated in the North as an annual, the seeds being sown early indoors. Its large purple, bell-shaped flowers yield honey and, with its dark green foliage, make it suitable to use as a covering for arbors or trellises.

[Concluded next week]

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

What Ailed the Bees?

What ails a colony of my bees? It contains No. 1 Italians; they are dying by the score every day and night. They seem to be working strong, and many of these bees die with their load of honey in them. They crawl out on the alighting-board and die. They seem to be bloated. There is no bloom now but white clover, which is very abundant. I have 7 other colonies, but nothing wrong with them. My bees were poisoned on the fruit-bloom by a neighbor spraying his trees, and I lost some then. Would that poison still affect them? I have had a small apiary for 20 years, and never saw anything like this before. Fulton Co., Ill.

Answer.—I hardly think the poison they received during fruit-bloom would affect the bees now, and I don't know enough to make a safe guess as to the real trouble. Occasionally some one reports a case much like yours, and the cause remains a mystery. Possibly some one may give us light.

A Smoker Trouble—Uniting Colonies.

1. My Crane smoker is giving me trouble, while I have a Clark always at hand, still for certain purposes I like the Crane the best. For instance, in driving bees out of supers I can get a greater volume of smoke, and it burns longer without replenishing. My trouble is this: I burn rotten wood—oak, gum, etc.; after it gets hot it begins to throw splotches of creosote on the sections as black as ink. What is my remedy?

2. My bees swarmed, and swarmed, and swarmed, so that

my original colonies have simply done nothing in the supers. I am thinking of doubling up all of these (two together) this fall, putting a mat between and leaving the empty hive with contents right on top until spring, when they will be ready for swarms, unless there is too much brood in the combs.

R. P. J.

ANSWERS.—1. A thick, black coating accumulates in the nozzle of the smoker. Try cleaning that out.

2. If I understand you, you'll simply set one hive with its contents on top of another, having a mat between, but leaving a free passage from one hive to another. Won't it be just as well without the mat? The bees will be likely to work into the upper story, and there will be no use for the mat during the winter. There will be some danger that the bees will fight. Less danger if you double right away while bees are storing. Make the one to be moved queenless two days or so before uniting, and they'll not be likely to fight, and the queenless bees will stay better where they are put. It will make matters still more secure if you put between the two hives a piece of rather stiff paper, leaving a hole hardly big enough for a single bee to get through. The bees will remove the paper at their leisure.

Use of Queen-Trap and Entrance-Guard.

Will the entrance-guard do the work it is represented to do? How do you handle the queen when she gets in this entrance-guard? My wife is going away for a week, and I am in business in town, and what I want is something that will prevent my bees getting away, as I have only one colony now, and am anxious to catch the first swarm that goes out.

INDIANA.

ANSWER.—The general testimony is that a queen cannot pass through the perforated zinc of the queen-trap, and that if a swarm issues you will find the queen in the trap. When you find the queen there, put her and the most of the bees into a new hive, setting them on the old stand, and putting the old hive with the brood on a new stand. Brush half the bees off each comb, or what is perhaps safer, brush the bees clean from half the combs. Sometimes the bees will run off the combs, and a big lot will be clustered in the hive, so you must be on the lookout. The idea is to get about half the bees that are in the hive. If you could be sure the weather would be warm, even less bees would do, for all you want is just enough so the brood will not chill.

Putting Bees into a Shipping-Cage—Threshing Italian Clover—Carniolan Bees—Wild Parsnips.

1. What is the best way to get queen and bees into a shipping-cage?

2. I have a plat of Italian clover; can I save the seed to advantage by threshing like timothy on a barn-floor, or will it stay in chaff like red clover? I thought probably as the seeds are large, I could get a portion clean of chaff.

3. What do you know of the Carniolan bee as a comb-honey producer? I have the Italian, black, and all shades of hybrids now. Which is the best, the pure Italian, the Carniolan, or just as they are? I can rear Italian queens from good stock at little expense, and good queens, too. Shall I weed out the black blood? I produce comb honey.

4. Now that wild parsnip affair. You can't take garden parsnip seed and grow anything poisonous out of it by neglect or any other way. However, there is a weed somewhat resembling the parsnip, commonly called "wild parsnip;" I have seen it growing in Monroe county. I cannot give its botanical name; however, if it will be of any interest to the readers of the American Bee Journal, I will collect a sample and send it to Washington and report. I will close by saying that the Doctor can't eat this weed and stay here without an antidote, and that quick.

W. VIRGINIA.

ANSWERS.—1. Push 'em in back end foremost. Pick for the rather young bees that are filling themselves with honey; take up by the wings while their heads are in the cell, lift the finger or thumb that has been keeping the cage closed, with the thumb and finger thrust the tail of the bee into the opening, and with another finger push her in, promptly closing the hole again. Some use a green leaf instead of the thumb to keep the hole closed. You can use the leaf as a kind of valve, pushing in the bee at one edge of the leaf, when it will spring back again. At least that's the way I understand it, for I haven't had much practice in that line.

2. I've no experience threshing Italian clover. Who can tell us?

3. Practically, I've no experience with Carniolans. Their advocates claim that they are superior, but they are hardly gaining in popularity, and the majority of honey-producers prefer Italians. Probably your best plan is to keep your bees much as they are, gradually replacing the blacks (especially those that do poor work) with the best honey-gathering stock of lighter color. You'll probably find that a good deal of black blood will remain among your bees for a long time.

4. No doubt you have the correct idea, that there is nothing poisonous about wild parsnip, but another plant closely resembling it is poisonous.

New Union and the Bee Journal.—In order to help our subscribers, and also the United States Bee-Keepers' Union at the same time, we have decided to offer a year's subscription to the American Bee Journal and a year's membership dues in the New Union, both together, for $1.75. But it must be understood that in order to get this rate, all arrearages of subscriptions must be paid, and the $1.75 rate to apply on advance subscription.

Now send us your orders, and we will attend to turning over the $1.00 membership fee to the New Union, on each subscription to the Bee Journal as per the above offer. This ought to add 500 members to the New Union by June 1. If it does, our contribution will be just $125.

Now, if you want to see the New Union succeed in its grand work, in the interest of *all* the bee-keepers, come on with your cash. General Manager Secor is just aching to do his part whenever he sees sufficient funds in the treasury to pay the bills.

The Horse—How to Break and Handle.—This is a pamphlet of 32 pages, giving complete instructions for breaking and educating colts, teaching horses to drive, and for use under the saddle, together with many instructions which have never before been publisht, and which are the result of the author's experience covering a period of 20 years. By Prof. Wm. Mullen, with whom the editor of the Bee Journal is personally acquainted. Price, postpaid, 20 cents; or given as a premium for sending us one new subscriber to the Bee Journal for the rest of the year at 50 cents.

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

Back Numbers Since Jan. 1.—We are able to supply complete sets of the Bee Journal since Jan. 1, 1897, to any who may desire, at two cents per copy. There are a number of new readers who perhaps would like to get some of the first numbers of this year, to complete their volume for 1897. We shall be glad to furnish them as long as they last, at two cents each.

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year —both for $1.10.

Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offers on page 389.

The American Bee Journal

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United States Bee-Keepers' Union.

Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

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Next Annual Meeting at Buffalo, N. Y., Aug. 24–26, 1897.

VOL. XXXVII. CHICAGO, ILL., JUNE 24, 1897. NO. 25.

Editorial Comments.

The Buffalo Convention, as has already been announced, will be held Tuesday, Wednesday and Thursday, Aug. 24, 25 and 26. And now Mr. O. L. Hershiser, who lives in Buffalo, has been so fortunate as to secure the main hall of Caton's Business College, corner of Main and Huron streets, in the B. D. Morgan building. Mr. Hershiser says: "This is an ideal location, and very easy of access—an airy, light, and very commodious hall." Mr. H. then adds:

> "*The use of the hall is free.* Mr. Caton is one of those large-hearted men who seem anxious to help a good thing along......I think perhaps he inherited his liberality towards bee-keepers—his father was a bee-keeper."

Mr. Hershiser is "working like a nailer" to make the Buffalo meeting the best ever held by bee-keepers. It ought to be, for never before have they had the advantage of such low railroad rates. To-day (June 17) the round-trip rate from Chicago was fixt at $10.50; tickets will be sold here Aug. 21, 22 and 23. That is just one cent a mile each way. The Grand Army always secures a low rate.

Further announcements will be made later as to hotel accommodations for bee-keepers when in Buffalo, as Mr. Hershiser is now working that up. Begin now to make plans to be there. The full program for the bee-convention will be out very soon, as it is now in the hands of the printer.

◆

Enforcing Laws Against Adulteration.—Mr. C. P. Dadant—one of the excellent Board of Directors of the New Union—has an article on page 387 that carries with it the true ring. We want to endorse what Mr. Dadant says, and urge bee-keepers everywhere (where there exist any laws at all against adulteration) to see if they can't be directed against the adulteration of honey, if it is practiced there.

But first join the New Union, and then you will be entitled to the aid of all its influence, its wise suggestions, and whatever of financial assistance it will be able to give. While the latter may not be great at first, it may be discovered that very little cash will go along way when it comes to fighting a battle in which *every* honest man is directly interested. Furthermore, we are under the impression that when the defendant finds the plaintiff is backt by a Union of a national character and reputation, he will think twice before he undertakes to fight with such odds against him.

Now is the time to begin the war—before the adulterators get hold of the new honey crop with which to mix their glucose or other adulterants.

◆

Dishonest Honey Commission Men, as in the past two or three years, will likely attempt to work their fraudulent schemes on bee-keepers this year. So we are out thus early with our annual and oft-repeated advice—

DON'T SHIP YOUR HONEY, OR ANYTHING ELSE, TO NEW AND UNTRIED COMMISSION MEN.

Just remember that, when you receive a flowery letter from some strange firm soliciting a shipment of your honey, and *don't* allow yourself to be caught, as has been many an unlucky bee-man the past few years.

Another thing: Should you receive a letter of any kind from any commission firm, and you have the least doubt of their reliability, just send that letter to us, and we will investigate them; and if we find the facts warrant it, we will warn bee-keepers at once. We don't propose to allow any of our readers to get swindled hereafter, if we can possibly do anything to prevent it.

Now read this whole item again, and if you get fleeced on account of not heeding our advice, don't you dare whimper to us.

◆

Wisconsin Foul Brood Inspector.—Mr. N. E. France, of Platteville, wishes us to say, for the benefit of bee-keepers in that State, that as the appropriation to support the Foul Brood Law is so small, Mr. France will be compelled to treat many cases by letter. Any Wisconsin bee-keeper who knows of a case of foul brood in that State, is askt to report it to him at once, and he will guarantee its cure. Mr. France furnishes to all such a free copy of Dr. Howard's foul brood book, with McEvoy's and his (Mr. France's) methods of treatment in the book. He says that about one in 20 in Wisconsin, who have bees, have neither a book nor a paper on bees. No wonder many do not know what to do, or when their bees are diseased.

So far Mr. France has inspected over 2,000 colonies of bees, and found many yards with affected colonies. But he says that all owners are going to follow directions, and cure the disease.

For any further information in regard to this matter, Wisconsin bee-keepers will address their State Inspector of Apiaries—N. E. France, Platteville, Grant Co., Wis.

◆

A Libel on Comb Honey.—The Northwestern Agriculturist is one of our valued exchanges, and having, as we supposed, an experienced bee-keeper—Mrs. Effie Brown—at the head of its apiarian department, we were greatly surprised to read therein the following paragraph credited to her pen:

ADULTERATING COMB HONEY.

> Many people prefer comb honey for table use because they know it is not adulterated. How do they know it is not adulterated? Because it is impossible to make artificial comb

honey that cannot be detected. That is very true, but artificial honey can be made and bees will just as willingly put it into combs and seal it up as they will the purest nectar; and more so, for they have to work hard for a little load of nectar, and a whole pan of sugar syrup right in the top of their hive is much more tempting. A pound of sugar will make, on an average, I am told, two pounds of "basswood honey." Can you wonder at honey being cheap? If you buy any honey, insist on knowing who made it.

It passes understanding that one so intelligent as Mrs. Brown should make such a misleading statement. Can you give us any evidence, Mrs. Brown, that bees will just as willingly put "artificial honey" into the combs and seal it up as the purest nectar, and more so? So far as reported, it has been the evidence of bee-keepers that bees prefer to all other sweets genuine nectar from the flowers, either in its raw or ripened form. How do you know, Mrs. Brown, that a pan of sugar syrup right in the top of their hive is more tempting than a little load of nectar, even if they have to work hard for the latter? Did you ever get them to store sugar syrup right in a flood of clover or basswood? When you have tried some experiments in that direction you will probably say something like this:

"It seems rather strange that bees should be so prodigal of their time and labor as to go off a long distance laboriously searching from flower to flower for nectar that must be much reduced before it becomes honey, when a substitute for ripened honey in the form of sugar syrup is right at hand, but such is the fact. The inexperienced portion of the human family may be deceived, but not bees. They prefer the pure article every time, when a choice is allowed."

Adulteration of honey has no little to do with "honey being cheap," but it is in the *extracted* form, and the price of honey is not in the least affected, as insinuated in the foregoing clipping, by adulterated comb honey. But it is affected, dear Mrs. Brown, by such statements as yours, especially coming from such a source.

Again, who "told" that "a pound of sugar will make two pounds of 'basswood honey?'" And, if it was told, isn't it a pretty big yarn to repeat?

In your last sentence above, you suggest that when people buy any honey they should insist "on knowing who *made* it." You probably meant to say that they should learn the producer's name, for if it is pure honey, and if it was "made" at all, of course the bees did it.

Hadn't you better, Mrs. Brown, correct as soon as possible the misleading statements in that paragraph, which are bound to do harm, even tho they were written with the best of motives?

The Weekly Budget.

MRS. A. A. SIMPSON, of Greene Co., Pa., wrote us June 15: "The bees are just booming. I have had 48 swarms, and loads of honey."

MR. HARRY LATHROP, of Greene Co., Wis., wrote us June 12: "White clover promises an immense crop here. Bees are beginning to store heavily."

MISS MATHILDA CANDLER, of Grant Co., Wis., writing June 13, said: "My bees are working nicely in the sections, and the most of them have swarmed."

MR. N. E. FRANCE—State Inspector of Apiaries for Wisconsin—wrote us June 10, as follows:

"I am happy to write you that *all* bee-keepers I have met are so willing to do as directed. I have great faith in curing nearly every foul brood case reported to me this season."

MR. W. L. COGGSHALL'S honey crop in 1896 was 78,000 pounds. He is perhaps the largest bee-keeper in New York State, unless Capt. Hetherington and P. H. Elwood are ahead of him.

MR. J. A. CLARK, of Nodaway Co., Mo., writing June 16, said:

"Just allow me to say that the American Bee Journal is a welcome visitor, and a great help in my work in the apiary. Bees are doing fine; white clover is immense."

THE W. T. FALCONER MFG. CO.—another of our regular advertisers—have this to say in the June number of the American Bee-Keeper in regard to the bees and also their bee-supply business:

"Notwithstanding the cold and backward spring weather that we have been experiencing in most northern localities during the past month, bees seem to be doing very well, and the supply trade is better than it has been for several years before."

MR. A. T. TANDY, of Merrimack Co., N. H., wrote us June 12:

"There is one man, not a great way off, that is doing much damage to the business. His honey shipt to market looks very fine, but there is little flavor of honey to it, and people are inclined to think that it is made from sugar, which I think is a fact. He is doing a big business now."

We hope Mr. Tandy will learn the real facts in the case, and if it is true, as he believes, begin to apply the law on the fellow—if there is a law against adulteration there. Tampering with honey must be stopt, and bee-keepers will have to commence the work.

JOSEPH H. BOLTON, of Mankato, Minn., (formerly of St. Paul) "has skipt out." He took his wife with him. So have written to us Mr. C. A. Goodell, of that place, and also the firm from whom Bolton bought his stock of bee-keepers' supplies, for he was a promising young bee-supply dealer at Mankato. Mr. Goodell reports that he lost $50, and that Mr. Taylor, of Forestville, lost $120; and says further that he received money for bee-supplies and kept it; also that he drew checks on a Mankato bank that proved to be worthless. The manufacturing firm who sold Bolton supplies, upon our requesting further information concerning him, kindly favored us with the following:

AMERICAN BEE JOURNAL, Chicago, Ill.—
Gentlemen:—Replying to your favor of June 14, we would say that J. H. Bolton, of Mankato, Minn., has skipt out, owing us quite an amount. He was a young married man, economical, and of good habits, but he got into debt buying a farm, and making extensive improvements. The bills coming due, and he seeing no way in which to meet them, became frightened and threw up his hands. If he had had the nerve, and faced his creditors, he would have been granted an extension, and as he was a hard worker and capable man, he would have workt out. This is the opinion that was given the writer by some of the Mankato people; also, that he took little or no money with him. We have no desire to wrongly injure the man, altho he owed us a large amount.
Yours truly, BEE-SUPPLY DEALERS.

Crimson Clover in Northern Ohio.—Gleanings for June 1 contained this paragraph about crimson clover in Medina Co., Ohio:

Our crimson clover is now in full bloom, and it is a sight indeed. I learn from Prof. Thorne, of the Ohio Experiment Station, that they also have succeeded during the last winter in wintering it over. A neighbor was here a few hours ago, who says he has ten acres. It was sown among corn at the last cultivating. He thinks the stand was almost as good as mine. He plowed it under, and is now going to grow corn on the same ground. From reports received it seems to be succeeding well through northern Ohio, especially along near the lake, and several reports have come of successful wintering in York State. A. I. ROOT.

BEE-BOOKS

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Bees and Honey, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages, and 245 illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold-lettered. Price, $1.00.

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J. M. YOUNG,
Practical Apiarist,
Box 874, Plattsmouth, Cass Co., Nebr.

General Items.

Bee-Fever Raging.

The bee-fever is raging here, and the bees are doing fine now. They began to swarm about June 5. Everybody is talking about getting bees.

J. C. Knoll.

Buffalo Co., Nebr., June 14.

Too Much Rain.

Last year was a poor one for honey—too much rain; this season has commenced the same way. We have had rain pretty nearly all April and May, and now in June it is still raining. Yesterday it rained all day; to-day it pours down.

James Laidlaw.

Ontario, Canada, June 7.

Looking for a Good Honey-Year.

I have 5 colonies to this date. White clover is in full bloom, and bees are working in the sections. I am looking for a good honey-year. Last year was a poor one.

I am watching for that great sweet clover lawsuit. I hope Dr. Besse will come out all right.

W. M. Daniels.

Perry Co., Ohio, June 12.

Rolling in the Honey—Cyclones.

Bees are rolling in the honey now. Last year at this time they were in a starving condition. Basswood will be a light crop. White clover is good. No swarms yet.

We had an awful hard rain here to-day. As it had just stopt raining I was out in the yard, and south of us I saw a terrible cyclone, about seven miles away. We saw it on the clean prairie; it was awful. That makes three cyclones that have past our place—two on the south and one on the north.

C. A. Goodell.

Blue Earth Co., Minn., June 10.

Handy Bee-Watering.

The American Bee Journal is the most interesting and instructive paper I ever had the pleasure to read, and I always look forward to its weekly arrival as a great help to me in working among the bees. There is never a week but I pick up some useful information or valuable hint, for which I am always grateful.

Seeing from time to time in it how some of the readers supply their bees with water, it may be of value to some to know how I do, as I like to have everything handy in the apiary, and I think it is something worth seeing to, to have some means of supplying the bees with water. It is money in the bee-keeper's pocket; for, as John G. Corey says on page 115 (and I am of the same opinion), that a long flight for water is very destructive to bee-life, both in regard to flying too far in cold weather, and in bad drinking places; and sometimes the nuisance caused by the bees drinking around dwellings or at watering places for stock. I think by having it handy, less bees can supply a colony, and leave more bees to gather honey. That is the way I look at it, anyhow, for I believe the bee, like a person, likes to have everything convenient to

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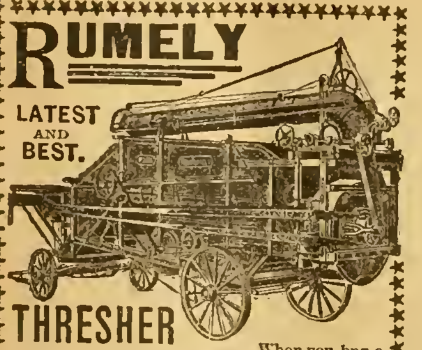

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the house—at least it looks so, from the way the bees take up the water.

I supply it to them not more than five feet from the front of the hives. I keep my bees in a long shed, in a single row, and do all the work with them from the rear, having lots of room for all my empty hives and supers, which are always at hand and ready. In one corner on a shelf I set a large keg, with a small faucet in it, which you can set to a steady drip, or just enough for the bees without any waste. I connect this arrangement with a trough which is five feet from the front of hive. The trough arrangement is the same as was described on page 204 of the Bee Journal, only I have always used 2x4 scantling with inch holes bored ½-inch deep, 5 inches apart, each hole connected by cutting a small groove, so that when one hole fills up it runs over and fills the next, and so on; and by filling the last half of the holes with salt, the bees have fresh and salt water both. I notice the bees are always thickest around the salt-water half of the trough. Salt water is another thing which I believe is indispensable in the apairy.

P. RUDDIMAN.

Columbia Co., Oreg.

Largest Yield of Honey Expected.

On Decoration Day I had 34 swarms, and on June 9 49 swarms—altogether 179 swarms this season, from 80 colonies, spring count. I think I will have fully as many more. I already have the second super on some hives, having already filled one. This is the earliest honey we ever realized in this community. The yellow sweet clover has now been out four weeks, and the white is not yet out. The prospects are for the largest yield of honey in the history of the State.

J. L. GANDY.

Richardson Co., Nebr., June 13.

Swarming in Texas.

I put into winter quarters seven colonies of bees, which came through in good condition, and now I have 17; five of them swarmed twice, and then I cut the queen-cells out and would not let them swarm any more; the other two didn't swarm any, tho they may swarm in July and August. We have two swarming seasons here in one year—April and May, and July and August.

I noticed in the last Bee Journal that Mr. York had some bees that he thought swarmed quite early—May 16. I call that quite late. My bees had gotten over the swarming fever then. My first swarm came out March 16, and they will commence swarming again about the middle of July.

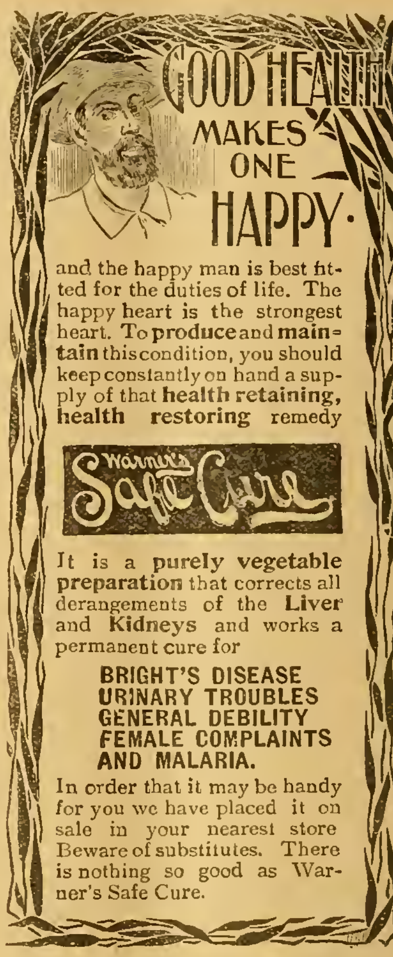
J. M. JEFFCOAT.

Collin Co., Tex., June 8.

Good Prospects for Honey.

My 13 colonies wintered well in the cellar, but one lost their queen, which I didn't find out till they had become quite weak, and as my hives are of various sizes, and no foundation used so as to start the combs straight, I could not well save them, so it leaves me with an even dozen.

I have secured for future swarms the 10-frame dovetailed hive, and shall put in comb foundation. I have fitted in the empty comb from the hive where the bees died, as far as it would go, and shall



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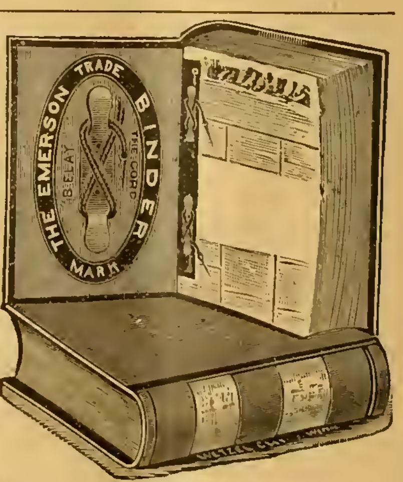

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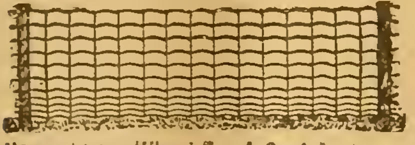

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DANIEL WURTH,
22A4t FALMOUTH, Rush Co., INDIANA.

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gave one comb to each swarm so that the queen can without any delay proceed to laying.

The prospect for honey is quite good, as there will be an abundance of white clover. The spring, however, has been very cold and unfavorable, so that the bees have not been able to build up very fast. The last two nights in May it froze ice ¼ of an inch thick, and nearly ruined the fruit. I have about 8 acres in small fruit, and it killed all of the fruit-buds and new vines of the grapes; blackberries were well budded, but I can scarcely find a bud but what is black; raspberries were not as badly damaged, and the prospect for them is fair, and when they get in bloom the bees will have a fine time. I raked the mulching of straw back on part of my strawberries, and so saved part of them, but where they were not covered they were nearly ruined, as they were in full bloom.

J. RIDLEY.

Winneshiek Co., Iowa, June 7.

◆

Weather Too Cool.

The season in this section of the country opened with a bright prospect for a honey crop; bees came through the winter in excellent condition, and began swarming in April. I had one swarm in April, and seven in May. I began the season with 15 colonies, and now have 22, but the weather for the past two weeks has been so cool that bees have done nothing but just make a living. There is more white clover bloom than there has been here in six years, but if we don't have some warm weather pretty soon the bees will get no good from it at all.

I have taken off one case of honey, gathered mostly from the oak leaves, which are covered with honey-dew. It is rather dark, but has a very fair flavor, some of it being candied before it is capt over. I took 400 pounds of Spanish-needle honey last fall from 12 colonies, spring count, and found ready sale for it at 12½ and 15 cents per pound. I didn't take a pound of honey last season until Sept. 25, the forepart of the season being too wet and cool.

I like the American Bee Journal well, and will take it as long as I keep bees.

W. E. WHITTINGTON.

Franklin Co., Ills., June 8.

◆

A Spring Report—Sundry Items.

My 45 colonies wintered very well on the summer stands in single-wall 8-frame dovetailed hives. Two of them were queenless in the spring, and were united with others having queens. All the rest came through in good condition. We had a very fine spring for bees; they were gathering natural pollen March 23, and before that date I fed my bees about 1½ bushels of corn and rye chop. The rye was, however, preferred by the bees, and they would swarm on it the same as if one would place combs of honey out for them to clean up. They would clean up a peck in two hours on a warm day. Bees were getting ready to swarm, and two of mine had swarmed May 18 and 19, after which it got cold, and a rough wind, rain and hail kept them in for nearly two weeks—in fact, some were very near starving, when it became warmer, and the white clover and Alsike (both of which are in great abundance—more

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E. L. CARRINGTON,
22Atf **De Funiak Springs, Fla.**

than we have had in 10 years) began to bloom, and bees began to work in great shape, and swarm in all parts—except mine, which I prevented so far by giving them lots of surplus room. But now we have had cold, rainy weather for three days, so that bees could not gather anything. The first or earliest swarm that we ever had in this part of the country issued May 26. This year a neighbor had one May 17.

The sale for bee-keepers' supplies is better this year than any previous year, and the old-time bee-keepers are changing from box to frame hives, and Italianizing their bees. The "king-bee" is no more, and the drones don't lay the eggs and hatch the brood any more! Chunk honey is not so beautiful, and does not bring the high price it did when the drones laid all the eggs, and the "king" lost the job.

I am using a Bingham 4-inch smoke engine, and like it very well.

It is not a very good spring to rear queens now—too cold.

I made myself a solar wax-extractor, and it works fine when the sun shines bright. I saw an item in the "Old Reliable" from Luzerne county some time ago. Let there be some more.

PAUL WHITEBREAD.

Luzerne Co., Pa., June 9.

A Beginner's Good Report.

This has been a fine year so far for honey. I have taken 75 pounds from each colony—comb honey in sections, I sell all my honey at home for 15 cents per section. It is white as snow. My sweet clover looks fine; it is about 6 inches high.

I use the "St. Joe" hive, and I think it is fine—so simple for a beginner, like me.

This year I have taken three swarms from bee-trees. This is the way I do it: I make a transferring hive that holds 18 Langstroth frames, and when I cut the tree I take all the honey and brood away; find the queen and put her into the hive, and get all the bees I can with her; leave the rest for a day or two, and then take them home, transfer the frames into the St. Joe hive, and all is complete. Mine are doing fine. I had one natural swarm April 9, and took 96 sections already, and the same colony swarmed again May 16, and I got 24 sections in 13 days after they swarmed. How is that for a beginner? Many thanks to the American Bee Journal and Langstroth's book for my success.

W. A. PELLEW.

Nevada Co., Calif., June 1.

Bee-Keeping in Washington.

The latter part of April and the beginning of May this year made my bees hustle. Almost everything that had a root on it was in blossom, and the bees gathered about 1,100 pounds of honey of the finest flavor, mostly from trees and shrubs. The flow came so unexpectedly early that my bees were far from ready to get the full benefit of it, as I do not practice stimulating the bees to early brood-rearing, only seeing that they are comfortable and have plenty of stores to draw from. This climate is altogether too uncertain for stimulative feeding in early spring. Very often we get the winter weather placed where the spring weather properly should be, and *vice versa*. Unlike Dr. Gallup's climate down in Southern California, where it rains only at night, and where the Doctor and his bees can run in and out of their respective "hives" all day without getting wet, we often have rain that will keep on raining night and day for several months at a time, and a newcomer is liable to think he must return East if he ever shall keep dry or see daylight again.

White clover is plentiful, and bees are working on it, but they don't get much honey. It is now too dry. We are wishing for rain.

T. H. WAALE.

Clarke Co., Wash., June 10.

Worst Season in 37 Years.

It is now June 10, and I am feeding full colonies to keep them from starving. Bees havn't had a chance to work for 10 days, and not over 6 days in all since May. When it does not rain hard it is cold, windy and cloudy. In my experience of 37 years with bees, I never saw such a bad season.

Essex Co., Mass. HENRY ALLEY.

Bees Doing Well.

Bees are doing very well this spring, altho we have had a great deal of cold and wet weather. My first swarm was on May 6, and I have had 14 to date. I I winter my bees on the summer stands, with an outside case, packt with dry leaves. I lost 2 colonies out of 24.

The welcome Bee Journal comes every Friday at 4:30 p.m. L. BRYANT.

Wayne Co., Pa., June 14.

Rolling in the White Clover.

I have kept a few bees for 15 years, but they didn't do much good for me until I commenced with modern improvements, and now, at this date, I have 28 colonies of 3-banded and hybrid bees. They are rolling the white clover honey in. Some of them have as high as 72 one-pound sections on, and are mostly finisht. SILAS JOHNSON.

Marshall Co., W. Va., June 14.

Bees Doing Well—New Union.

My bees are doing well at present, altho the season has been very backward. Up to date bees have built up strong. There are plenty of bees in the colonies that are left. In many instances people lost a great many bees last winter, and I attribute it to the poor honey-flow last fall. Bees in many instances went into winter quarters without sufficient honey to keep them through the winter. From the first of last August until winter set in, bees did not make a living, and consequently all late swarms went into winter very weak.

Having had some experience with commission men, and knowing that the American Bee Journal is a defender of the right, I think every bee-keeper should be a subscriber to it. I hope before many days to become a member of the New Union, as I believe it is calculated to rectify many evils that now exist, such as adulteration of almost all kinds of food, especially honey. But we will keep up the war on commission men, such as Horrie and Wheadon, until they are exterminated.

E. B. HUFFMAN.

Winona Co., Minn., June 11.

Preservation of Farm Profits. —Competent judges place the saving in labor resulting from the use of the Low Handy Wagon at $125 to $150 per year on a farm of 160 acres. We submit that such an item is well worth the saving in such stringent times as these, when such a sum may frequently represent the difference between profit and loss in farm operations. Anything that will save labor will save money. The difference between the high lift necessary to load a wagon on high wheels and the labor required to load the Low Handy Wagon represents so much vital force and physical energy; the man who saves that energy and force, other things being equal, will live longest. Why do a thing the hardest way when there is an easier and quicker way?

The Low Handy Wagon referred to is being supplied by our advertising patrons—The Electric Wheel Co., of Quincy, Ill. Those people manufacture the wheels themselves, and are supplying the gear at cost in order to introduce the wheels, which are of the modern wide-tire pattern with staggered oval steel spokes. This will afford our patrons the opportunity of securing one of these most useful implements at the lowest possible cost. The Electric Wheel Co. also make wheels that will fit any wagon you have on hand, or any cultivators, drills, etc. Write them for a copy of their book, "The Preservation of Farm Profits," which will be sent free to all readers mentioning the American Bee Journal.

Be of Good Courage.—The situation does not begin to be as bad as it looks. Sit down and look the facts in the face, and do not let them scare you. Something is wrong with you. At times your pulse flutters and your heart jumps. Your skin is pallid and swollen just beneath the eyes. You look much older than you are. After bending over your desk a little while you feel a pain in your back, and you are slow in straightening your body on rising. You are fidgety, irritable and "blue." Somewhere you have read that these symptoms show kidney disease. Is that what ails you?

More than likely, and you would have good reason for fear did you not know that Warner's Safe Cure is obtainable at the drugstore on the corner. You also know that this remedy is so powerful as to have robbed even the once-dreaded Bright's disease of its terrors.

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Take Warner's Safe Cure and be of good courage.

Page Never Needs It.—*Gentlemen:*—When driving lately, I noticed a neighbor repairing his fences. One day he was working on one made of ribbon wire with plank at top. At another time on one made of barb and plank at top. I stopt and askt him if he had repaired that fence, pointing to about 80 rods of Page that has been up four years or more. He said, "What fence, the Page?" I said, "Yes." He replied, "No, indeed! that never needs any, and I only wish my landlord would put it all over the farm, as it would save me so much work that I have to do every spring." I told him I was glad I did not have any fence repairing, as my whole farm was enclosed, and fields divided with Page, and as I used nothing but red cedar and locust for posts, think it will be a long while before they will need replacing. I have no trouble to find my stock when turned out, as they are always in their place. Until I had all Page I had much trouble to keep mine home and others out. HENRY RIEMAN.

Tunis Mills, Md.

Bee-Keeper's Guide—see page 382.

The Mesh Around The Panel Shows How The Fence Is Made.

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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., June 14.—Fancy white. 12@13c.: No. 1 white. 10@11c.; fancy amber, 9@10c.; No. 1 amber. 7@8c.; fancy dark. 8c.; No. 1 dark. 5@7. Extracted. white. 5@7c.; amber. 4@5c; dark. 3½@4c. Beeswax. 26@27.

Not any new comb honey in market. Extracted very slow of sale.

Philadelphia, Pa., June 14.—Fancy white, 13@14c.; No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber. 10@11c.; fancy dark. 8@9c; No. 1 dark. 7@8c. Extracted. white. 5@6c.; amber 4@5c.; dark, 4c. Beeswax. 25c.

New honey has commenced to arrive. Very little call at present. To-day is very dull. Prospects are for very low prices. Biggest honey crop in 10 years.

Milwaukee, Wis., June 14.—Fancy white, 13@14c.; No. 1 white. 11@12c.; fancy amber. 10@11c.; No. 1 amber, 8@10c.; fancy dark, 8@9c. Extracted, white. 5@6c.; amber, 4@5c. Beeswax, 27@28c.

The stock of honey is working down to a small supply; especially for anything fancy. It is encouraging to apiarists to find that the more carefully and nicely honey is prepared, and the better the quality sent to this market, the more readily it will sell. and good returns follow. And new choice quality comb will sell, while the common is very hard to move at any price. We think the old stock will all be disposed of before any new crop is ready for market.

Buffalo, N. Y., June 14.—Fancy white, 10@11c.; No. 1 white, 8@9c; fancy amber, 7@8c; No. 1 amber. 6@7c. fancy dark, 6@7c.; No. 1 dark. 5@6c. Extracted. white. 5@5½c.; amber. 4½@5c. Beeswax, 20@25c.

No demand now, and we can't move any kind without pushing and cutting, but we can sell at some prices.

Kansas City, Mo., June 14.—No. 1 white. 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 9@10c.; No. 1 dark, 8@9c. Extracted, white, 5@5½c.; amber, 4@4½c.; dark, 4c. Beeswax, 25@30c.

Very little old comb honey in market. No new in yet. There is considerable extracted on hand.

Boston, Mass., June 14.—Fancy white, 13c.; No. 1 white. 11@12c. Extracted, white, 7c; amber. 5@6c.

The demand for honey is light, but that is to be expected at this time of the year. Supply is also light.

Cleveland, Ohio, June 14.—Fancy white, 12½-13c.; No. 1 white, 11c.; fancy amber. 8-9c.; fancy dark. 7c.

Honey is moving very slow. We believe, however, as soon as the new crop comes in it will move much better.

New York, N. Y., June 14.—Comb honey is all cleaned up now, and there is no more demand for any; could sell some nice white comb at from 10@11c., but would not advise shipping of any more buckwheat. New crop extracted is arriving quite freely from the South, and finds fairly good sale at from 50@52c. per gallon for average common grade, and 55@60c. per gallon for better grades. Expect to have new crop California here within the next two weeks or sooner.

Beeswax steady at 26@27c.

Minneapolis, Minn., June 14.—Fancy white, 12@14c.; No. 1 white, 11@12c.; fancy amber, 10@11c; No. 1 amber, 9@10c.; fancy dark, 8@9c.; No. 1 dark. 7@8c. Extracted, white, 6@7c.; amber. 5@6c.; dark, 4@5c. Beeswax, 24@27c.

Demand for extracted honey is nominal. but at fair prices. Comb very slow on account of warm weather.

Detroit, Mich., June 14.—Fancy white, 10@12c.; No. 1 white. 10@11c; fancy amber, 8@9c.; No. 1 amber, 7@8c. Extracted, white. 5@6c.; amber, 4@5c. Beeswax. 25-26c.

Cincinnati, Ohio, June 16.—Comb. 8-13c. Extracted, 4-6c. Beeswax, fair demand at 22-24c, for good to choice yellow. Arrivals are fair.

There is a fair demand for extracted honey, and arrivals of new honey become plentiful.

San Francisco, Calif., June 9.—White comb, 9-10c.; amber, 5-7c. Extracted, white, 4¾-5¼c.; light amber, 4-4½c.; amber, 3½c.; dark tule, 2¾c. Beeswax fair to choice, 25-27c

New-crop honey has been coming forward quite freely, mostly extracted, with demand slow at full current figures, and mainly for local use. Some inquiry is being made on foreign account, but shippers' ideas of values, so far as exprest this season, are at a low range, and under any prices which have yet been acceptable to producers. This year's product, owing to its generally fine quality, should prove very desirable to European dealers, and it is hoped they will see their way clear to bid figures which will allow at least a fair remuneration to apiarists.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

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R. A. BURNETT & Co.. 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEOELKEN.
120 & 122 W. Broadway.

Kansas City, Mo.
C. C. CLEMOMS & Co., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & Co.. 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
A. B, WILLIAMS & Co., 80 & 82 Broadway.

St. Louis, Mo.
WESTCOTT COM. Co.. 213 Market St

Minneapolis, Minn.
S. H. HALL & Co.

Milwaukee, Wis.
A. V. BISHOP & Co.

Boston, Mass.
BLAKE. SCOTT & LEE., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave

Albany, N. Y.
CHAS. McCULLOCH & Co., 380 Broadway.

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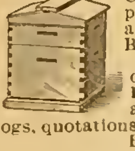

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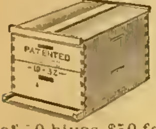

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10A19t *Mention the American Bee Journal.*

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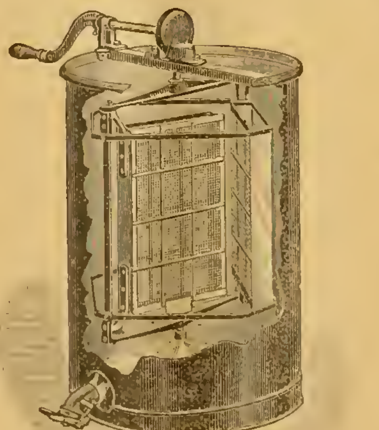

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AMERICAN
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Contributed Articles

Extracting Honey—Treatment of Unripe Honey

BY C. P. DADANT.

I have received the following questions, which I will answer in the American Bee Journal:

MR. C. P. DADANT—*Dear Sir:*—I would like to ask you a few questions about honey and extracting.

1st. I have some supers on where the frames are about 2/8 or ¾ capt. Will it hurt to take the supers off now? The bees are capping the super under it before finishing the top one.

2nd. If I take these off and set them in a dry room, won't the honey ripen there?

3rd. How soon do you start to extract?

4th. How can a person tell when honey is too watery to extract?

5th. Would my honey do to extract now? It seems, when a super is pretty near full, the bees work better in an empty one. I don't want to tier up too high for fear of blowing over; I have three on some hives now. Respectfully,

THEO. KELLER.

ANSWER.—In the first place, I must say that the fact that bees are capping a comb of honey does not mean that the honey is sufficiently ripe. I have often seen honey work, or ferment, in such a way as to burst the capping of the comb, and I dare say every bee-keeper of experience has seen the same thing. This happens more especially in hot and damp summers, when it is very difficult for the honey to ripen, owing to the dampness of the atmosphere. In an ordinary season, honey may be considered sufficiently ripened when it has been on the hive for a week or more.

The greatest trouble with unripe honey comes from that which is daily added to an unfinisht super by the bees. During the first two or three days after it is harvested clover or basswood honey is usually so thin as to shake out of the combs very readily, or even to drip out, if the comb is upturned. Such honey will not do to extract, unless it is afterwards ripened artificially.

Messrs. Muth & Son, of Ohio (who are good judges of honey, for they handle hundreds of barrels of it every year), tell us that they ripen their honey by keeping it in open vessels, after extracting, in a warm and dry room. Thus it is quite likely that if the supers are taken off and placed where they can have air and warmth, the honey will thicken and become sufficiently ripe; but we would prefer to leave such supers on the hive, even if we had to tier up to such an extent that it would become necessary to prop up the hive with stakes or braces. Not only would the bees ripen this honey faster than can be done artificially by the current of air that they constantly force through the hive, and by their production of animal heat, but there would be also the advantage of the super furnishing them additional space for honey as fast as the quantity is lessened by evaporation. Consequently, we would not start extracting until there was absolutely no room left for the bees to store honey ; or so little that further delay would be likely to induce them to swarm.

There are several reasons why the bees work better in an empty super than in a full one, that is, provided the combs are already built. The hive being less crowded, they find the place to deposit their load much more readily, and thus lose less time in hunting for empty cells. Then there is no need of building additional comb or whitening or stretching the combs already built. If a bee is able to empty its honey-sac readily when coming home, its wax-producing organs are not so active as when it has to remain for hours before a spot may be found in which to store the booty. But when one super is full and the other only one story above it, there is but little time lost, and we believe it is a mistake to remove either before they are well filled, unless more may be procured, or unless the crop is at an end.

When the crop is ended, it takes but a very short time for the last honey harvested to mature, and we make it a point to begin the extracting, if it has not already been begun, just as soon as the harvest ceases. There are seasons, however, like the present one, when the honey-flow is so strong and so continuous that the bees get overcrowded, and the supers are all filled long before the end of the crop. The only remedy to such a state of things is to take the chances of a little unripe honey, and relieve the hive of its load before any time is lost by the bees, or before swarming preparations are made. When there is any doubt, however, as to the ripeness of the honey, it is well to follow the Muth method and keep it in open vessels in a hot, dry place for a few weeks, before attempting to put it on the market.

The honey from clover and basswood, for some reason, is much more liable to sour or ferment than that from Spanish-needle and fall bloom. The latter seems to be ripe just as it is harvested ; and we have, in extraordinary seasons, extracted from fall blossoms as many as five times in the course of as many weeks, without having any trouble with the honey afterwards. On the other hand, we have seen basswood honey in a wet season that could not be ripened satisfactorily ; and the only way in which it could be made at all salable was by heating. As a matter of course, such honey cannot be rankt as of good quality. Hancock Co., Ill., June 19.

Mating of Queens—How it May be Controlled.

BY L. A. ASPINWALL.

In most lines of progress we find, with the advantage gained, a corresponding evil presents itself. This became apparent upon the introduction of improved bees, notably the Italians. Notwithstanding their recognized superiority over the black or brown bees, the difficulty of maintaining them in their purity has been and is still a great impediment to profitable bee-keeping ; so much so, that many have abandoned them, accepting as a natural result the hybrids, or, more properly speaking, a mongrel or cross with the blacks.

To maintain an Italian apiary, unless all other varieties are removed for several miles, requires constant vigilance as well as the exercise of scrutinizing judgment. Not infrequently a few colonies of black bees in the neighborhood of an Italian apiary, will, after two or three years, become dominant in Italian blood. The owners of such, being unlettered in bee-culture, often express themselves as possessing Italian stock.

At this juncture the difficulty of maintaining absolute purity is much increast. As an illustration, we have a queen which becomes mated with a drone from this mongrel stock, which is possibly ¾ or ⅞ Italian, or one which shows but a trace of black blood. As a result, her progeny is well-markt, and to the casual observer would be accepted as pure. But, upon close examination, possibly one bee in 50 or 100 will show but a slight proportion of yellow upon the third abdominal ring. Should the bee-keeper fail to recognize this taint of black blood in the young queen's progeny, a succeeding generation would bring drones into requisition which would contaminate the Italian stock to a great extent, yet almost imperceptibly, especially if the law of atavism (a recurrence to the original type) is displayed on the Italian side. According to my judgment there is much impurity of this kind throughout the land.

I had an illustration quite similar last season. A young queen proved to be mismated. After destroying her, I gave the nucleus colony a cell which, after a time, I found was destroyed. In the meantime business matters caused me to neglect the colony, during which time they reared a queen from the larvæ of the mismated queen, which in due time mated with an Italian drone. When her progeny began to appear to my surprise it was most perfect and beautiful in its marking. Among my mismated queens last season several from the yellow stock show but a few dark bees—possibly one in 30 or 40.

This recurrence to an original type is greater in its tendency with golden Italians crost with Carniolans than Italians and blacks. The logical conclusion would be, that either the golden Italians or Carniolans, or both, were not sufficiently thoroughbred to belong to a fixt type. A thorough knowledge as to the stock these varieties were bred from would tend to explain this tendency. However, we have the evil of intermixing to contend with, tho we may be able, among the possibilities of the future to control the mating of queens sufficiently to secure mostly pure stock.

Its desirability is evinced by the numerous efforts which have been made to accomplish it. The principle upon which most experimenters have workt has been to limit the flight of the queen and drones to small areas by enclosures made of wire-cloth, such varying in size from 2 or 3 feet square to 10 or 15 feet. It is evident that any or all enclosures will intercept the flight of both queen and drones to an extent which would thwart the intended purpose. Even if success can be attained, the expense of such enclosures in sufficient numbers for a large apiary would more than counterbalance the advantage gained. So thoroughly have I been imprest with the impossibility of success by such methods that I never attempted it. However, I believe in a method which shall limit the flight of the queen, but not to the prescribed lines of enclosures, and which shall be quite inexpensive.

I have experimented with a considerable degree of success the past four or five years upon a method which has partly limited the flight of the queen. Whether mating at a distance of several miles is due to flight of the queen or drones, or both, is as yet unsettled in my mind ; however, I am inclined to believe that the queen is prominent in making long distances. In proof I have markt quite a few drones when leaving the hive, and found their return to be much within the average time occupied by queens. Still the drones have wonderful wing power, and possibly make equal distances with queens in less time.

The method I have practiced is no less than clipping about 1\16 of an inch from the virgin queen's wings a day or two after emerging from the cell. As a result, less than half as many proved to be mismated compared with an equal number of those not clipt. Clipping certainly lessens the wing power of the queen, and, in consequence, places a limit upon the time and distance of her flight. It will be observed that such a limit naturally confines the queen more within a home radius, or circle, of the home drones.

My first experiments were attended with considerable doubt as to whether the queens would still retain sufficient wing power to successfully mate with the drones, but the uniform success attending the experiments led me to clip as much as ⅛ of an inch from two or three with equally good results last season. Just how much can be clipt from the wings, and still retain sufficient wing power to accomplish successful mating, is yet to be determined. Whether clipping a hundred or more select drones will be profitable is questionable. In lines of progress the unexpected usually occurs on the successful side. As yet so little is known about the flight of queens and drones that it is impossible to determine without experiments in clipping of both. Possibly the clipping of both queens and drones would result in their occupying a lower altitude in flight, insuring a still less number of mismated queens. On the contrary, the drones might be so weakened in their power of chasing flight as to be useless. Certainly if the object can be accomplisht by clipping the queens only, it will involve but little trouble and expense.

It should be understood that success attendant upon clipping is contingent upon having none but pure drones in the apiary containing the young queens, also that the amount clipt from each wing be uniform, otherwise with a lack of balancing power the queens are sure to be lost.

I am so well satisfied with past results that I expect to clip all my young queens the coming season.—Bee-Keepers' Review for January, 1897.

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Palestine Bees Compared with the Italians.

BY G. M. DOOLITTLE.

A correspondent writes that he is thinking of commencing bee-keeping soon, and says:

> "I am thinking of starting with the Palestine bees, if I can find them. What do you think of them as a bee for me to start with? Are they good honey-gatherers? A friend of mine tells me that those he had were very prolific, and says that the prolificness of any queen is to be greatly valued in any race of bees—more than anything else. What do you think in the matter?"

Well, I think that prolificness in a queen is one of the good things which goes toward making a success in bee-keeping, but a queen should be prolific at the right time. If she is thus, it is of great value; if prolific at times when her brood comes on the stage of action when there is no honey to gather, her prolificness counts for naught. If your friend had modified his statement so as to make it read that he valued the prolificness of a queen above all other qualities, when it could be so regulated that such prolificness would be of the greatest value to the bee-keeper, I would heartily endorse it; but if his writing as he did is to be interpreted that he regards the prolificness of a queen at all times of the year more than anything else, or above all other qualities, I must say that I think his assertion a mistaken one.

In this locality, where we have about six weeks during the whole season in which the bees make any gain in honey, what we want is a queen that can be coaxt to fill the hive to overflowing with brood during a few weeks previous to this honey harvest, and lay just as few eggs at all other times as is consistent with accomplishing the above object. If your friend had a piece of work which he must accomplish at a certain time, if he were to receive any profit therefrom, he would hire his help before the time expired, or not at all. If he wisht help at a certain time, and they did not come until it was too late, surely he would not keep and board them six or eight months because it was not convenient for them to come sooner. Surely not! He would tell them that he did not want them, for it was too late. So I say, that, when bees come to the stage of action in any great abundance after the honey harvest is past, it is a damage to the apiarist, rather than an advantage.

Why I prefer the Italian bees to all others is for the reason that they are more susceptible of being handled so as to get the hive overflowing with bees at just the right time, than are the bees of any other race. Also, as soon as the honey harvest arrives the queen will cease her prolificness, and thus we do not have a lot of "hungry hands" to board when they are of no use to the apiarist. Many of our largest honey-producers have come to think the same way, as is shown by the following which has lately come to hand:

> "I get very much the best results from my full-blood Italians. The Italians seem to be very much more disposed to partially stop brood-rearing, and bend all their energies to honey-gathering, whenever there is a heavy flow of nectar, than any other kind of bees which I have tried, and this is a very great advantage."

Now to the question about the Palestine bees: That they cannot be managed so as to fill the above requirements in this locality, is why I am adverse to them, and I think that one would make a mistake in selecting them to start an apiary with, even if they could be found, which I doubt, as they seem to have withdrawn from sight during the last few years. With me they would not start a large amount of brood at any other time save when the honey-flow was on, and this I think is one of the worst faults that any race of bees can possess; for an extra amount of brood during a honey-yield always means a multitude of mouths to feed after the honey-harvest is past.

When I tried the Palestine bees it was with the only hope that they would prove better than the bees which I already had; but when I found out that I could not coax the queens of this race to lay eggs rapidly except in the honey-harvest, I saw that it would be impossible for them to give a large yield of honey, no matter what other good qualities they might possess. After doing my very best with them for several years, and with those from several different parties, I was obliged to record only 50 pounds of honey as a surplus from the whole, while I had to feed them a large amount to get them in condition for winter, taking combs of sealed honey from the Italians to feed them with; while the same number of Italian colonies gave over 500 pounds of surplus during the same time and with the same management.

With me, the Palestine bees would increase but little till the honey-harvest arrived, when they would crowd every available cell with brood, which brood would use up nearly all the honey the few workers previously reared could gather while the honey-harvest lasted. On the contrary, when the honey-harvest opens, the Italians have a hive overflowing with bees, and every comb filled with brood, and this brood will gradually decrease till at the end of the harvest I have lots of honey with few mouths to feed.

Here is an item which many bee-keepers seem to lose sight of when following their profession: Bees are of value only when they come in time to take advantage of the honey-flow; and whether through the race of bees or the carelessness of the apiarist we fail in this point, little profit, or none at all, is sure to be the result.

The same fault that I have spoken of in the above exists to quite a large extent in the Carniolan bees, or at least, has done so with the three different lots I have had on trial. While they can be brought up to rapid brood-rearing before the honey-harvest, yet they are determined to breed all through the harvest, and to a large extent after it is past; so that, as a rule, unless they are lookt after, many colonies are apt to be short of stores, to go into winter with, while the large amount of brood reared during the honey-harvest takes away quite a quantity of what should be secured as surplus.

Onondaga Co., N. Y.

Comments on Bee-Keeping in Louisiana.

BY JAS. B. DRURY.

The South is indeed one of the Paradises for bee-keeping. Here the bees can fly *almost* every day in the year, and gather nectar, more or less, almost all the time they fly. We have some flowers that bloom in the winter, which furnish some pollen and nectar. I have seen them bringing in pollen in the months of December and January.

The honey outlook is very good for a surplus crop. We have quite a long flow, but our greatest summer flow is commencing, and will continue until about July 10, after which it slacks up until the last of October and forepart of November, when we will get a good flow from golden-rod, wild asters, and many other fall flowers that are cultivated here. One district in this "Crescent City" is called the "Garden District," because every little spot that can be utilized is made into a garden of some kind. People that have paved yards take up a brick and plant a few seeds of some kind of vine, and in a very short time have their "galleries" (Southern name for porch, balcony, or veranda) covered with a delightful green and cooling growth, which tends to make life a little cooler in this semi-tropical climate.

Early in April I caught a swarm, or rather found it under a plank walk where it had settled, and putting them into an empty box I noticed a nice, large, but very dark leather-colored queen with them, and that evening I took them home on my bicycle, putting them into a frame hive. Looking at them a few days later I noticed that they were building only drone-comb. "Where is that nice queen?" says I. Hunt for her I did, and no sign of a "queen" could I find. "Oh," says I, "the bike shook the life out of her; I'll fix that." So I went to one of my best colonies and took a partly-built frame of eggs and brood and put it into their hive, and in a week I had quite a number of nice queen-cells sealed over. But there is one thing about them I could not understand: I gave several to nuclei, and when the time came for them to hatch, all but two hatcht. I let them stay two weeks longer, and still no hatch from them, so I took a sharp-pointed knife and cut it open, but nary a queen—the only thing in them was a soft, yellow substance, not unlike a pellet of pure wax. Why were the bees so foolish as to build out a nice, large queen-cell, cap it, and all when there was not any young queen in it? Hard one, eh?

I noticed a rather curious thing not long ago in one of my semi-Carniolan colonies. I saw a cell among the brood that protruded from the comb about the length of a worker-cell, but capt like a drone-cell. I cut it open and found two worms (larvæ) in one long cell, one on top of the other.

As all of my hives had full sheets of foundation when I started, I wondered where all the drones came from. Looking, I found that nearly all my queens had laid drone-eggs in worker-cells; they seemed to be just as large and as vigorous as those I had seen reared in drone-cells.

Among the many plants we have here which furnish honey and pollen, the sunflower is in full bloom, nigger-head (honey sharp and biting); portulacca, cherokee rose, colleopsis (pollen only) have bloomed. Beans and peas, leguistrum, both hedge and tree kind, and willow, all give some nectar; but our main crop just now is from clover (White Dutch). We have acres and acres of red clover here in Audubon Park, coming up mixt with the white kind, but I never could see a bee working on it, no matter how long I would look for them.

There is another plant I must mention here, that is cow-slip, or what some call the nettle or hunter's drink (so-called because hunters use the young stalk to chew when they cannot get any water to drink). It grows all through the winter, and in the early part of spring sends up usually one stalk about four feet high, which has numerous large flowers on it, from one to four inches in diameter, which is a regular gold-mine of nectar. I have seen as many as six to ten bees working on one flower, and when they got ready to fly to their hives they were so loaded with the "good stuff" that they would fall to the ground. The flower after maturity is used by some for a face-powder pat; the seeds are somewhat like the seed of dandelion, with a sort of a small parachute, which, when a light breeze blows, take wing, and if they settle on some low, damp spot are sure to take root. People here try all they can to get rid of them, but I for one like to see them grow, because it means honey for other bees besides my own.

I had one of the worst cases of robbing last summer you ever heard of. (Experience is a very bitter school.) It was all through my own negligence. I took some honey from a hive in frames, and not having an extractor, I cut it out and put the frames with a little bit of honey under the top-bar in front of a nucleus that had very little, thinking to strengthen them thereby. Well, sir, just as soon as the bees got the scent of that honey my whole bee-yard was in an uproar—bees in the air as thick as swarming time, bees trying to get into every hive in the yard (and woe to the bee that succeeded in getting into one—killed outright). I had an empty hive standing in the yard that quite a number of the robbers got into, and staid there for three or four days, and when they found it empty they turned to and protected it, as if it was their own hive. I never saw the like before—dead bees all over the yard and sidewalk, and I can tell you it taught me a good lesson, never to put honey in reach of them again.

I see in the Bee Journal one writer says he rears larger bees by putting seven frames in an 8-frame hive, nine in a 10-frame, etc. Now that may hold good with him, but I find that the relation in size is due to the queen. I have some queens that are very large, and their bees are correspondingly large. Then, again, I have some queens (the same stock) that are about as large as some of the workers of my large queens, which produce workers half the size of the others. Therefore, I think the large bee is due to a large and healthy mother, and not to seven frames in an 8-frame hive. Why, I have in some of my 8-frame hives nine frames, which do not seem to inconvenience them, or cause them to be any shorter.

The seasons seem to be changing here. Think of the golden-rod blooming in December and January, and dahlias (which are a fall bloomer also) blooming now; and in a few weeks we will have golden-rod again. Some of it is two feet high, and is beginning to put up flower-heads. We are beginning to have some real hot weather here now—93° Fahr. in the shade to-day. It has been very cool heretofore, owing to the height of the old Father of Waters. We had a very hard fight to keep the water out here. Levees had to be raised from six inches to three and four feet, and otherwise strengthened; also a guard for every mile in the daytime, and one for every half mile during the night, but we can be thankful that we have been spared an inundation. The water is going down fast, but all danger is not over yet.

I think Doolittle's plans of making increase, as described in the American Bee Journal recently, are very fine. Some things that are publisht in the Bee Journal are worth more to me than the year's subscription price.

Orleans Co., La., May 24.

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Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offers on page 401.

The Old Union and Honey-Adulteration.

BY PROF. A. J. COOK.

I did not intend to write again upon this subject for the American Bee Journal, but it seems to me the interests of bee-keepers demand something further. I notice that I am somewhat criticized for not expressing myself more definitely before on this subject. I thought I had done so. I have felt all the time that amalgamation should not be voted if there was any considerable opposition to it. I believe there was some opposition and so I voted no. I was not personally opposed to amalgamation, but was opposed to changing an organization where money had been paid into the treasury unless the members were pretty unanimous in the desire for such change. It still seems to me that such position is correct.

I did not understand that we were voting, at the time of the taking of the last vote, against doing any new work. It seems to me to thus tie the hands of the organization is to emasculate it, and that by so doing we shall very soon destroy its life altogether. I do not believe that the members of the Old Union intended to vote in this way. Of course I may be wrong in this opinion.

I do not believe that we can afford to maintain two organizations. I think one or the other will soon cease to exist. It is irrational to provide machinery for two organizations among the same class of people whose duties are so much akin. Thus I believe that one or the other of these organizations ought to, and will soon, go to the wall.

If the old organization decides to only work in the old lines—which I believe are very nearly worktout—then I think it is very easy to see which will survive.

I believe at the present time there is hardly a subject engrossing the minds of bee-keepers that is so tremendously important as that of honey-adulteration. If we except co-operation, I do not believe there is any subject that so justly claims earnest thought and consideration. Therefore it is that I wish strongly to urge that the Old Union take this matter of honey-adulteration in hand. It seems to me that nowhere are the conditions more ripe for earnest action than right here in California. The Manager of the Union is here; California is one of the most important honey-producing sections of the world; the interests of bee-keepers are seriously menaced, right here in California, by the nefarious work of honey-adulerators. I cannot see how any member of the Old Union would hesitate a moment in urging that action commence at once to extirpate this horrid work from our beloved State. We now have a very excellent law, and all opportunity to make a grand and successful fight. The Old Union has a prestige which will also count for much in aiding it to dethrone this iniquitous practice. It would seem as though we would not have to urge this matter at all to secure immediate and most energetic action.

General Manager Newman writes me that the members of the National Union have voted only to work along the lines which have hitherto claimed his attention. He further adds that under these circumstances he is not at liberty to take hold of this matter of adulteration. This being the case, I would urge that all of the vice-presidents write at once to Mr. Newman (at 2096 Market St., San Francisco), urging that such work be begun, and that at once. In case the constitution makes it impossible for such action to be taken, until another vote is had on the subject, then I would be in favor of asking for a vote at once. I have not the constitution at hand, but surely if the vice-presidents all ask for a vote, the Manager would not hesitate for a moment to call for one.

I urge this strongly because I believe that it is the height of wisdom for the Old Union to take this matter in hand. I do not believe that the members will desire to have so large an amount of money idle when such important work is crying to be done. I believe that unless we do enter this or some other field, that there will very soon be a vote to disorganize and hand our money over to some organization that will take hold of such important issues.

I do not see any need of any ill-feeling in the matter. I certainly have not the least. It seems to me that we all ought to be privileged to urge our views, and I will very gracefully yield if a majority do not agree with me regarding what is best to be done. I think I know our bee-keepers too well to charge them with any wrong motive. We simply want what is wisest and best, and we will all work hard to get that. If I am in the right, and the majority do not agree with me, I must simply wait action until they can be convinced that my way is the wisest one. I am always inclined to the opinion, however, that when I am in the minority, the probability is that the other side has the right of the question.

In the position which I have taken above, I believe I am acting consistently with all my previous action. From what Mr. Newman writes me, I fear I did not give as earnest heed in the matter of the last vote as I should have done. If I was guilty in the matter, I can only urge that I was exceedingly occupied, and had very little time to give to matters outside of my immediate work. Los Angeles Co., Calif.

CONVENTION PROCEEDINGS

Report of the North American Convention Held at St. Joseph, Mo., Oct. 10-12, 1894.

REPORTED BY LOUIS R. LIGHTON.

[Continued from page 390.]

WHAT SHALL WE PLANT FOR HONEY?

Annuals:—

Mignonette (*Reseda odorata*) is a great honey-producer, and since it blossoms from June to October in the middle portions of the Union it may well occupy quite a place in every bee-keeper's garden, and in favorable localities the raising of the seed might be made profitable. I had some correspondence with the well-known seedsman, W. Atlee Burpee, on this subject, and tho he did not write very favorably regarding the attempt to raise seed in the East, still I gained the idea that good seed would find a ready sale. I would like to see the experiment tried. With a few acres near the apiary a summer yield of honey would be assured.

Giant Spider Plant (*Cleome spinosa* of Linn., and *C. pungens* of Willd.) introduced from South America grows wild now in some places in the South, and blooms very freely all summer long and late into the autumn, secreting large quantities of honey in each blossom. An enterprising New York seedsman has now offered a clear white variety. *Cleome integrifolia*, known as Rocky Mountain Bee-plant, is quite similar but smaller. All of them are beautiful ornaments which should be in every garden—and especially in the bee-keeper's. They will thrive in very shady locations—under trees and the north sides of buildings—where few other plants succeed.

Ten Weeks Stock (*Mathiola annua*) if sown early indoors may be made to bloom from May until autumn, the plants being set out as soon as danger of frost is past. Sown early in the open ground honey is yielded in July and August.

Eschscholtzia or California Poppy.—Fine, hardy annual, of which there are several species which blossom in from 30 to 40 days after sowing and yield honey all summer.

Anchusa.—Known in Germany as Oxtongue, and in England as Alkanet. Numerous species offered by our seedsmen. They are related to borage and resemble it somewhat, are hardy annuals eagerly visited by the bees for honey, of which they secrete much, during May, June and July.

Corn Flower, Blue Bottle or Ragged Sailor (*Centaurea* *cyanus*) yields honey for a couple of months in summer. It is a favorite in old gardens and easily grown.

Lallemantia canescens, blossoming in June, July and August, gives honey.

Echium plantagineum of the Borage family is closely related to Blueweed or Viper's Bugloss, which is such an excellent honey-plant in the valleys of Virginia. Its dark blue flowers appear in June, July and August.

Marsh Flower (*Limnanthis douglasii*) will flourish in merely moist soil. Its yellow and white blossoms appear in spring, and are quite ornamental.

Dolichos spp.—Rapid-growing handsome climbers.

Balsam Clover or Blue Melilot (*Melilotus cæruleus*) blossoms all summer long like the white Melilot, our most abundant sweet clover. Both are raised as forage crops in Switzerland to give to Krauter cheese its peculiar flavor. The blue species is also an excellent honey-plant, and deserves a place in the garden, and the seed should be fully saved and scattered along roadsides or on waste lands where white clover does not grow.

Lupines (*Lupinus* spp.) already mentioned for forage are, some of them, very ornamental, as, for example the deep blue Texan Lupine (*L. subcarnosus*). Some fifty species and varieties are known.

Bartonia (*B. aurea*) is an easy plant to raise from the seed, blooming a month after sowing and continuing all summer. Its large, brilliant, yellow, saucer-like blossoms look like masses of pure gold, and indeed the plant comes from the Golden State.

Phacelia congesta of the Hydrophyllaceæ or Water-leaf family is mentioned by Dr. Dzierzon as a most excellent honey-plant. He said a Russian bee-keeper had recommended it to him. Sown in May it blossoms in June and continues all summer. Its blossoms are bright blue, one variety being white; plant grows one to two feet high. One species is known as Texas phacelia (*P. texana*). Another is *P. tanacetifolia*. All yield both honey and pollen in abundance.

Plants for Experiment.

Perennials :—

Catnip (*Nepeta cataria*) Hoarhound (*Marrubium vulgare*), Motherwort (*Leonurus cardiaca*), Thyme (*Thymus vulgaris*), Peppermint (*Mentha piperita*), and other similar herbs might perhaps be grown to supply our drugstores and also for the seeds. When grown for the leaves the plants have to be cut just as they are coming into bloom, but if their culture were more general much seed would have to be raised, thus giving the bees the benefit of the blossoms. I understand that most of the catnip used by druggists is imported.

Concerning peppermint Mr. Burpee writes me that it is a shy seeder, and one could probably find ready sale for all the seed he could raise. There are certain localities in Michigan and New York where peppermint is grown for the purpose of distillation to get the oil or essence. Of course it has been found profitable else it would have been discontinued long ago. Perhaps bee-keepers could raise the seed for them.

Sulla or Soola Clover (*Hedysarum coronarium*) is a great honey-producing crop in southern Europe. It has been introduced into England where it is often called French honeysuckle, and thence into Australia under the name soola. Wherever it has gone it is in great repute as a forage plant, so that it hardly needs to be placed in the experimental list, but can be counted as a plant that will succeed in most parts of our country, and like alfalfa will withstand drouth. It blossoms from June to August inclusive. The only representative of this genus known to be native in America is *H. boreale*, which occurs in Labrador south to New England and west to the north shore of Lake Superior. We might reasonably expect this closely related cultivated species to show some of the hardiness of the wild form.

Gorse, Furze or Whin (*Ulex europaeus*) a leguminous plant belonging in a genus close to our Dyer's Green-weed, Woad Waxen, or Whin (*Genista tinctoria*). It was once deemed almost useless, but has been planted in certain situations as a forage crop, and has been introduced into Australia. It will grow in sterile, dry, exposed situations where more profitable crops could not be produced. It makes a bushy growth, and may be allowed to stand two years between the times of cutting and 20 tons per acre, of forage, can then be obtained, which requires cutting up or bruising before feeding. As hedges or windbreaks it may prove useful in some part of our wide domain. Its yellow flowers appear in May and yield some pollen and an abundant supply of honey.

Licorice (*Glycyrrhiza glabra*), belonging in the Pulse family, is cultivated in Europe—chiefly in Spain, Italy, Bavaria and northern Austria. Its culture is said to be quite profitable in those countries, and it is also claimed that bees in the licorice-growing districts get a good yield of honey from its blossoms, which appear in June and July. Our wild licorice (*G. lepidota*) is found from Minnesota to Missouri and westward. I would suggest that bee-keepers keep an eye on these plants and see whether honey is not to be obtained from them.

Alpine clover (*Trifolium alpinum*) also called Mountain Licorice because of its sweetish roots, grows in the Alps. It has purplish blossoms which I think yield honey, but I know little of the plant. It is a suggestion merely.

Osier or Basket Willow (*Salix viminalis*) furnishes in Europe an excellent supply of pollen and some honey in March and April. The last edition of Gray's Manual of Botany says that it is occasionally planted here but soon dies out, its hybrids doing better, however. The Purple Willow (*Salix purpurea*) is the one most commonly cultivated here for basket rods. It is raised in New York successfully, but I cannot say where besides. It blossoms at the same time and yields an abundance of pollen like the other European species just mentioned. Bee-keepers might plant it in moist places, even replacing our native species, which are not so valuable for baskets.

Protea mellifera.—Under this name reference is made on page 378 of "Langstroth on the Honey-Bee," as revised by the Dadants, to a plant growing near the Cape of Good Hope, which secretes such quantities of nectar that the latter can be dipt from its blossoms with a spoon. The plant they have mentioned is variously known as Sugar Bush, Sugar Tree, Cape Honeysuckle, or Honeyflower, and the natives do, in fact, gather the nectar as described, and, after straining it and evaporating a part of its water, the resulting syrup becomes an article of commerce. Could this shrub or tree (there are some sixty species in the same genus, all natives of Africa) be brought to this country and establisht in the subtropical portions of the Union?

Sacalene (*Polygonum saghalinense*).—Will our bees get honey and pollen from this wonderful new forage-plant? It is in the same genus with our smartweeds and bindweeds, with persicaria or lady's thumb, and is near to buckwheat—all among our great yielders. This argues well for it, and we shall soon have it on trial. Meanwhile a few words about it. This plant was introduced for ornamental purposes into Europe over 25 years ago from the island of Saghalien, lying between Japan and Russia. Its economic value was not however noticed until 1893, when the dreadful drouth of that year caused the complete failure of usual forage crops and the loss of great numbers of animals, while others were only saved by feeding them the leaves of trees. During this time sacaline remained green and its leaves were readily eaten by cattle. The plant grows about ten feet high, can be cut three or four times during the season, and will give 20 to 25 tons of green fodder, of coarse quality, at each cutting. The leaves can be boiled and eaten like Spinach, the tender shoots like asparagus. The roots withstand severe freezing.

Annuals :—

Borage (*Borago officinalis*) might perhaps be raised extensively by some bee-keeper for its seed and to supply the druggists with leaves. There is some demand for the seed, as the plant is grown as an ornament in many gardens, and for the leaves for use in medicine. It may not be known to many that the tender leaves are quite edible, forming a very healthful addition to green vegetables, and also to flavor salads. They are frequently so used in southern Europe where the plant grows wild. The bright blue blossoms last from June until after severe frosts, yielding considerable honey.

Chick Pea (*Cicer arietinum*).—This plant, originally introduced from the Old World, has been raised more in the West and South than elsewhere, and has become known as "Coffee Pea" from the use of its seeds as a substitute for coffee. Under the name of "Chuna" the seeds of a plant used in Mexico for coffee have been tested at one of our experiment stations and found to be a very prolific variety of the Chick Pea. Certain seedsmen have recently made great claims for this plant as a substitute for coffee. The peas may be used to make soup. I think the blossoms yield honey, but have not tested it personally.

Trigonella or Fenugreek (*Trigonella fœnum-græcum*) is sometimes cultivated in Europe as a forage plant, and is worthy of trial here. Its blossoms, like those of the clovers, to which it is closely related, yield honey freely in June and July. Blue Trigonella (*T. cærulea*) is raised in Switzerland to impart a pleasant flavor, like that of sweet clover, to products of the dairy—particularly to some kinds of cheese for which that country is noted.

Serradella (*Ornithopus sativus*) is a leguminous forage-plant of great value, as yet scarcely known in this country, but which has been introduced and cultivated for some years in Germany and Austria where it is constantly growing in favor. It is grown as an annual in cold climates, but may in our milder sections stand for several years. A warm, moist climate is most favorable to its growth, but it stands drouth well, and will succeed on light soils. Of the new forage crops it is safe to say this is one of the most promising for general introduction into this country. Indeed, I need not have hesitated about placing it in the list of clovers—Alsike, white, crimson, Japanese, etc., recommended without reserve for one portion or another of our great country. But since without experiment we cannot say just what place this will best fill, it may remain in this list for the present. Serradella is an important honey-plant, its yellowish-red blossoms, which appear in June and last until August, yielding abundantly, and the honey is light yellow in color and of good quality.

This list of nectar-yielding plants, much longer than I at first intended it should be, still contains by no means all of those which we might raise for honey. I have only ventured to mention some of the more important ones, and particularly such as I think are not as widely known as they deserve to be. My chief trouble has been to keep the list within bounds by the omission of numerous plants, shrubs, and trees that are well known as secreters of nectar, but which are not of great practical value otherwise, or which are difficult to raise, or not available over great areas. Among these are some very interesting plants, beautiful ones, some old friends that I regretted not being able to place in this good and honorable company. I have preferred, also, to omit the names of many plants which I believe to be of value to our bees, but with whose honey-producing qualities I am not familiar, or at least not sufficiently so to enable me to speak with some degree of certainty. I hope others will add to the list in this respect.

FRANK BENTON.

A. I. Root—In regard to the *Cleome pungens* I have had some experience with that. Sometimes I have been able to gather the nectar or honey from the flower with a teaspoon. I was told that there was a great deal of licorice in California. I did not see it, but was told there was. I don't know anything about the honey-yield from it, but I do know that bee-keepers are moving bees in many localities near to where it grows. Bee-keepers are also moving bees near where onions are. They seem to get good yields from it.

L. D. Stilson—Too many of us bee-keepers do not know whether our plants are honey-producing plants or not. The bee-keepers want to be more accurate in regard to keeping track of the honey-plants in their localities, so as to know what the bees are gathering from at any season of the year. They ought to keep data of the honey-plants which grow in their neighborhood, and in that way know what the bees are gathering from. I have undertaken to study our honey-flora, and the more I look into it the more I find out that I do not know anything about it. It is the question at the bottom of all successful bee-culture. I believe the time will come when every bee-keeper will commence in the spring of the year and keep a record of what blossoms first, and what next, and so on. Each one must study it for himself, and by the time he has practiced it for a year or two he will begin to find where his honey is coming from, and then he will find that there are gaps between these honey-producing plants which he will learn how he can fill up. Whenever you do that you will begin to do the rest of your work in better style. The production of honey and the keeping of bees must be brought down just as close in the matter of detail as any other branch of business. You will have to study the honey-plants of your own locality. The people of Missouri are not as much interested in what is raised in Michigan as about their own apiaries. Every man must study for himself.

Pres. Abbott—I want to suggest one thing. I know of nothing that is any more pleasant than the study which is necessary to understand thoroughly the honey-flora of any locality—elementary botany. If you have any boys or girls at your home that have never given any attention to botany they can study it out for themselves. You do not have to have a teacher, and if you want to know of some books that will stir up an interest in botany I will tell you of two of them that are very small but exceedingly valuable. "How Plants Grow" and "How Plants Behave." You will find enough in these books to stimulate the study. Any boy can take "Gray's First Lessons in Botany" and analyze a plant. I think the time is coming when every successful bee-keeper will have to be posted in botany.

F. H. Richardson—There are a great many of us that cannot study botany at the present time. I am in the bee-businesss for the dollars and cents, and I think we ought to talk about some bee-plant that would do us good at the present time. I believe to get honey you get your bees strong at this time of the year and they will winter well, and then plenty of honey will be brought in. I have always had some. I have got my hives full of honey now, and they are all right for the spring. Mr. Benton's essay has a good deal of value in it, but I cannot begin to remember it, and I would like to ask where it will be printed. I would like to have a copy to refer to.

George W. York—It will be publisht in full in the American Bee Journal.

R. F. Holtermann—I want to ask how many of you have got sweet clover that your bees work on? [About 25 members raised their hands.] How many of you know whether it is good for forage? [Five.]

Pres. Abbott—Sweet clover here is all right for forage when animals learn to eat it, but after it produces flowers it is of no value as a forage plant. If it is to be used as a forage plant it will have to be cut before it blooms.

J. H. Milne—Alfalfa is worth more than sweet clover for forage and honey, but we can't raise it here.

L. D. Stilson—I beg to differ from this gentleman who says that we can't raise alfalfa in this country.

Pres. Abbott—You can't raise it where there is a clay between the upper soil and the water.

Mr. Whitcomb—As I left home they were harvesting the fourth crop of alfalfa with a clay subsoil, and the water is 100 feet below the surface. My bees will not work on alfalfa when they can get anything else. Sweet clover will grow where anything else will grow. If it is cut in season it makes as good a forage as alfalfa. It is a good dry-weather grower, and it makes good hay, and it is a fine fertilizer.

Pres. Abbott—I have understood that the roots of the alfalfa will go down 12 or 15 feet. There is a plant of the ordinary red clover that goes down 10 feet. The roots of the Alsike clover also go down to great depths where it has a sandy subsoil. I would like to know if it can go through a clay subsoil?

Mr. Whitcomb—In Kansas and Nebraska the alfalfa roots work down through what might be called the "joints" between the layers of the soil. Roots have been found 30 feet below the surface. It is very hard to raise, and it must be put in with a press drill.

Mr. Milne—I spoke with reference to our northwest Missouri soil. It succeeds admirably after it gets started, but it is difficult to get caught, mainly because the land is so weedy. If the weeds are cut and kept down it will grow well. I have had some growing for from two to ten years, and where it can get caught it makes the best yielder I ever tried. I think Alsike and alfalfa are the best for bees.

Pres. Abbott—Do drouths kill it?

H. J. Newberry—No. We have had this season the worst drouth that has occurred for years, and I have cut four crops.

Mr. Whitcomb—The present drouth has not affected the crop of alfalfa. There is one thing about sweet clover—it must not be left too long before it is cut.

Pres. Abbott—Yes, if it is left until the sugar is out of it —out of the stalk—it will not be eaten.

Dr. Miller—There is a place that I know of, and that I pass when going down to my out-apiaries, where for half a mile the sweet clover grows along the roadside and the cattle are turned in the road and tramp it down going back and forth to pasture. It is not more than a foot high, and is always in bloom.

John Wier—There are five acres of sweet clover just close to me, and in the early spring the cattle on the road eat it off, and it comes up again and blooms later than ever—it blooms later than where it has not been eaten off, and there it grows big and then dies.

G. V. Hagaman—I have been watching sweet clover for a good many years, and I have come to the conclusion that it is the only thing that I ever heard of that we can control. If you have sweet clover you will be sure to get honey. As Dr. Miller says, it makes a nice growth in the spring, and the cattle eat it. If the first crop is cut close to the ground, the second crop will come up and bloom right after the white clover and basswood.

W. L. Porter—In some districts where it is very dry we get but little benefit from alfalfa as a honey-plant.

[Concluded next week.]

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year —both for $1.10.

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Next Annual Meeting at Buffalo, N. Y., Aug. 24–26, 1897.

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Editorial Comments.

That Buffalo Convention—are you beginning to plan to go? It will be the first good chance to have a real big meeting of bee-keepers. With only half a cent a mile on all railroads, it seems to us every bee-keeper will try his best to be there. Why, it will be almost as cheap to go as to stay at home!

Remember the date—Tuesday, Wednesday and Thursday, Aug. 24, 25 and 26.

Mr. O. L. Hershiser, who lives in Buffalo, is making great preparations for the bee-convention. Shouldn't wonder if he'd have something fine to say about it pretty soon.

The program will be issued soon, in pamphlet form. You will want a copy of it, whether you attend the convention or not. Next week we hope to be able to tell you more about it—more about the program and also about the convention.

◆

The Old Union and Adulteration.—On page 405, Prof. Cook has an article urging that the National Bee-Keepers' Union take up the fight against adulteration of honey in California, as they now have a stringent anti-adulteration law there. Were it not for the fact that the good Professor says he was unable, from a press of duties, to give the subject of amalgamation due consideration when it was up for discussion and voting the past winter, his stand now would be almost amusing.

Several of the members of both the Old and the New Union *tried* to get the members of the former society to see that if only the amalgamation of the two organizations could be effected, then all the money in both treasuries, and to be paid in thereafter, could be used in a big effort to stop the adulteration of honey, or along any other important line of interest to bee-keepers.

But as all know, amalgamation was defeated, and with it a pretty clear notice given that the money in the treasury of the Old Union was to be used only in protecting bee-keepers in their right to keep bees, and not to be spent in other directions. Altho *we* had about as big a share in the funds on hand as any one, and very much desired to see a union of the two societies, so that greater work could be undertaken, we quietly submitted to the will of the majority—until some future time, when those disagreeing with us could have time to see the error of their action, and perhaps untie the hands of the Old Union, by finally deciding that there shall be but *one* national organization of bee-keepers—an organization around whose standard and objects might be rallied a large membership that would be *glad* to contribute when they could see that every bee-keeper in the land was being benefitted thereby.

But everything depends upon the general manager of a society like the Union, if anything useful is to be done. If the manager is listless, unaggressive, and "afeard" to begin a fight against the wrong, when having ample backing, then of course nothing will be done, and the membership can simply have the "pleasure" of belonging to an organization with a big name, and existing upon past achievements, tho of but little real use in the world.

Like a political party, when an organization fails to address itself to the new and developing needs that accompany progress and the ongoing of time, it should have the good sense to get out of the way, and not continue a stumbling-block or an impediment in the way of the advance of newer and better organization, that is adapted to meet the demands of the times, and that will, with proper and deserved encouragement, do even a greater work than the superannuated society ever did. We say this with all due respect for what the Old Union has been enabled to accomplish in years gone by. But all organizations must keep abreast with, or broaden out to encompass, the rapidly increasing needs, or expect to be superseded by others that will do the work that must be done.

Had Prof. Cook, and all the rest of the one hundred or so that helpt to defeat amalgamation, voted the other way, he now would need to spend no time in an endeavor to get the resulting society to undertake the enforcement of an anti-adulteration law, for that is a part of the New Union's business, and just as soon as it has the necessary funds (as it would have had long ago, had amalgamation carried) it will likely address itself to that important task.

Permit us to suggest that another ballot on amalgamation be taken soon, without any unjustifiable interference by any one, as was done at the last election, and we'll warrant that it will carry with a whoop, and all will be happy and hopeful—except perhaps those with a pet hobby, or who think they must rule, else all will go to the everlasting bowwows.

◆

Another "Cure" for Bee-Paralysis.—Mr. Joseph Monnier, of Florida, who has had some experience with bee-paralysis, describes his treatment as follows in Gleanings for June 15:

> Last fall my prospects as a bee-keeper were very unsatisfactory by reason of "paralysis" among the bees, nearly my whole apiary being infected. The bees had a greasy appearance, and were dying in front of the hives by thousands, and I thought seriously of giving up the business. So, just before starting for Miami to pass the winter, I doubled up several of the very weakest and left them for all winter in discouragement.
>
> About the first of last March I went to take a look at them, and found about half of the colonies dead, and the others very weak; but I was surprised to see the colonies I had

doubled up. They were as strong as any I ever saw—had a bright, healthy color, and not a sick bee. They were full of honey. This set me to thinking, and I formed this theory:

The bees were loath to kill off their own sick "brethren," but killed the sick strangers without mercy, and thus threw off the disease; so I went to work and put two colonies together, where I thought they were too far gone; and where they still had enough bees I simply changed their places, putting No. 1 in the place of No. 2, and No. 2 on the old stand of No. 1. I did this in the middle of the day, when the bees were at work, also shaking some combs of bees before their entrances, so as to mix up thoroughly the bees in both hives. The results were astonishing. They went to work on the sick bees, and in a few days I saw a markt imporovement; and now my apiary is as healthy as any I ever saw. I have already extracted 550 gallons of honey, besides increasing my bees back to last last fall's count. The bees are bright, full of life, and are as cross as any I ever saw. All a colony needs is bees from another colony to cure themselves. So sure am I of this, that, if I were buying bees now, I would not discount them on account of paralysis. If, as you say, it may come again, let it come. It doesn't take long to apply the remedy; and if you could see my bees now it would be difficult for you to realize the condition they were in only three months ago.

Editor Root says in his foot-note to Mr. Monnier's article: "Not until I shall find that it works with equal success in the hands of others as well, shall I begin to believe that we have a real cure for bee-paralysis." Here's a chance for an experiment for those who have bees afflicted with the disease.

◆

Adulteration; Cane Sugar and Glucose.—The following paragraphs appeared as an editorial in Gleanings, and we think we need make no apology for reproducing it:

"When an analysis of honey shows only 10 per cent. of cane sugar as an adulterant, and no glucose, it does not necessarily signify adulteration. I believe the United States chemist stated, some time ago, that very small percentage of cane sugar found in honey could not be taken as positive evidence of fraud. If I am correct, nectar, just as it comes from the flowers, is chemically, to a great extent, a cane sugar; but after it has past through the ripening process it is converted into what we call honey. Sometimes, when the honey is gathered and stored rapidly, it is not as thoroughly ripened at some times as at others. The consequence is, analysis shows a trace of cane sugar.

"Perhaps our readers may think that, even if this is true, it would not be wise to give publicity to it, for the reason that dishonest persons would think they could add at least 10 per cent. of cane sugar to their honey, and not be detected. No fear need be apprehended along this line, for the reason that good qualities of honey are sold so near the price of cane syrup it would not pay to put in so small an amount. But then it may be argued that it might pay to put at least 10 per cent. in *dark* honey; but here, again, the price is as low or lower than the syrup. If adulteration were practiced at all it would be syrup adulterated with honey, rather than honey adulterated with syrup.

"But you may ask what specially called forth this editorial. A short time ago an innocent party was accused of adulterating, because the chemist found 10 per cent. of cane sugar in his honey. I wrote to the party in question, giving the position of the United States chemist, and added that it was my opinion his honey wasn't adulterated: that, if he were bad enough to go into any such fraud, he would not stop at 10 per cent., but would put in enough to pay him for doing it, and that would be 50 or at least 33 per cent.

"On the other hand, when analysis shows a very small percentage of glucose, it is pretty certain that some one put it there. Glucose is very easily detected by the chemist, and it is no difficult matter to determine even the very exact per cent. of it. The adulterant (glucose) by reason of its very low price, and the fact that it is almost devoid of any color, is what we have to fear. It pays, from a financial standpoint, to mix honey and glucose, provided the mixture can be palmed off as pure honey. But our food commissioners in our various States are becoming more and more alert; and with good laws back of them in every State in the Union, the chemists would enable them to hunt down the guilty parties and make them pay the penalty of the law. The United States Bee-Keepers' Union will undoubtedly work to secure the enactment of pure-food laws in States where they have none. There is no question but this is the proper way to handle the glucose problem."

The Weekly Budget.

Mr. R. McKnight, of Canada, uses the solar wax-extracter for evaporating fruit. It is necessary to raise the cover slightly to allow the moisture to pass off. So says the Review.

Mr. Jas. A. Stone, of Sangamon Co., Ill., Secretary of the Illinois Bee-Keepers' Association, wrote us June 23: "Bees are just booming." Last year they hardly paid him for their "keep."

Mr. C. P. Dadant, of the firm of Chas. Dadant & Son (the great comb-foundation makers), writing us June 19, said:

"We are all well and booming. We have been kept busy for two months past. The bees are filling everything. This season will give the bee-fever to thousands of people."

Mr. W. J. Stevenson, of Ontario, Canada, wrote us lately:

"I find I cannot do without the American Bee Journal. I get it regularly every week, and always find something to help me on. In No. 24 I find the very thing I wanted."

Mr. Henry Alley—the old Bay State queen-breeder—wrote us as follows, June 19:

"Friend York:—Why don't you send that hot wave to New England? While you are sweltering with the heat we are enjoying fine, cool weather—78° is the highest temperature since April 25. The weather has cleared, and bees are doing well now. My advertisement in the American Bee Journal is bringing in lots of orders. I always get good returns from an advertisement in your paper."

Mr. G. S. Crego, a young bee-keeper about 15 miles west of Chicago, kindly brought us a section of new comb honey June 22, which was taken from the hive the day before. It was gathered principally from dandelion bloom, and was very nice for that grade of honey. It had been stored in comb built by the bees last year, first leveled down to perhaps half an inch deep cells. The comb was very tender, and tho Mr. Crego thought the septum would be tough, it was not noticeably or unpleasantly so. In fact, only an expert would detect it, and then perhaps only after having his attention called to it. Surely the new drawn foundation would be no more in evidence. We are anxious to try a sample of new comb honey built on the drawn foundation. Nothing like personal experience, you know.

Editor Hutchinson, in the May Review tells a bit of personal experience—he calls it "genuine praise"—that is worth repeating here:

"There was one little incident happened when I was away at the Fairs last fall that I have several times been tempted to tell, but have not done so for fear that some of my readers would think that the telling was prompted by egotism, but I have decided to tell you that that *isn't* the motive, and then tell the story, so that you may enjoy the situation.

"One afternoon, towards evening, as most of the sightseers had left the building, I was leaning against a pillar a little in front of my exhibit, looking at the show in a sort of admiring, speculative mood, when a young man came along and began talking with me about bees and bee-keeping, evidently taking me for a visitor. After talking awhile he said:

"'I see that you are somewhat interested in bees, and I'll tell you of an article that you ought to read. It was in the Cosmopolitan a year or so ago. It was illustrated, and ran through two numbers, and the man that wrote it not only knew something about bees, but he knew how to tell it so that other folks could understand it. Of course, I have read and heard a great deal about bees, but there were lots of things that I never really understood until I read that article and lookt at those pictures.'

"And then he went on to tell me of some of the wonderful things that he had read there. By holding my tongue, except to thank him, I prevented us both from feeling very foolish and uncomfortable, but I considered it the most genuine and disinterested compliment I ever received."

◆

Now is the Time to work for new subscribers. Why not take advantage of the offers made on page 401?

BEE-BOOKS

SENT POSTPAID BY

George W. York & Co.,

Chicago, Ils.

Bees and Honey, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages, and 245 illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold-lettered. Price, $1.00.

Langstroth on the Honey-Bee, revised by Dadant—This classic in bee-culture, has been entirely re-written, and is fully illustrated. It treats of everything relating to bees and bee-keeping. No apiarian library is complete without this standard work by Rev. L. L. Langstroth—the Father of American Bee-Culture. It has 520 pages; bound in cloth.

Price, postpaid, $1.25.

Bee-Keepers' Guide, or Manual of the Apiary, by Prof A. J Cook, of the Michigan Agricultural College.—This book is not only instructive and helpful as a guide in bee-keeping, but is interesting and thoroughly practical and scientific. It contains a full delineation of the anatomy and physiology of bees. 460 pages; bound in cloth and fully illustrated.

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Scientific Queen-Rearing, as Practically Applied, by G. M. Doolittle.—A method by which the very best of Queen-Bees are reared in perfect accord with Nature's way. 176 pages, bound in cloth, and illustrated. Price, $1.00.

A B C of Bee-Culture, by A. I. Root.—A cyclopædia of 400 pages, describing everything pertaining to the care of the honey-bees. It contains 300 engravings. It was written especially for beginners Bound in cloth. Price, $1.25.

Advanced Bee-Culture, Its Methods and Management, by W. Z. Hutchinson.—The author of this work is too well known to need further description of his book. He is a practical and entertaining writer. You should read his book. 90 pages, bound in paper, and illustrated. Price, 50 cts.

Rational Bee-Keeping, by Dr. John Dzierzon—This is a translation of his latest German book on bee-culture. It has 350 pages; bound in paper covers, $1.00

Bienen-Kultur, by Thomas G. Newman.—This is a German translation of the principal portion of the book called BEES OF HONEY. 10 page pamphlet. Price, 40 cents.

Convention Hand-Book, for Bee-Keepers. Thomas G. Newman.—It contains the parliamentary law and rules of order for Bee-Conventions—also Constitution and By-Laws, with subjects for discussion, etc. Cloth, gold-lettered. Price, 25 cts.

Thirty Years Among the Bees, by Henry Alley.—Gives the results of over a quarter-century's experience in rearing queen-bees. Very latest work of the kind. Nearly 100 pages. Price, 50c.

Why Eat Honey?—This Leaflet is intended for FREE distribution, to create a Local Market. 100 copies, by mail, 30 cts.: 500 for $1.25; 1000, $2.00.

How to Keep Honey and preserve its richness and flavor. Price same as Why Eat Honey.

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Bee-Pasturage a Necessity.—This book suggests what and how to plant It is a chapter from BEES AND HONEY. Price, 10 cents.

The Hive I Use, by G. M. Doolittle. It details his management of bees, and methods of producing comb honey. Price, 5 cents.

Dr. Howard's Book on Foul Brood.—Gives the McEvoy Treatment and reviews the experiments of others. Price, 25 cts.

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Foul Brood, by A. R. Kohnke.—Origin, Development and Cure. Price, 25 cts.

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Maple Sugar and the Sugar Bush, by Prof. A. J. Cook.—Full instructions. Price, 35 cts.

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Capons and Caponizing, by Dr. Sawyer, Fanny Field, and others.—Illustrated. All about caponizing fowls, and thus how to make the most money in poultry-raising. 64 pages. Price, 30 cts.

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Rural Life.—Bees, Poultry, Fruits, Vegetables, and Household Matters. 100 pages. 25 cts.

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Hand-Book of Health, by Dr. Foote.—Hints about eating, drinking, etc. Price, 25 cts.

Bee-Keepers' Directory, by H. Alley.—Latest methods in Queen-Rearing, etc. Price, 50c.

Book Clubbing Offers.

(Read Carefully.)

The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only ONE book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted, see postpaid prices given with the description of the books on this page. Following is the clubbing-list:

1.	Langstroth on the Honey-Bee	$2.00
2.	A B C of Bee-Culture	2.00
3.	Bee-Keeper's Guide	1.75
4.	Bees and Honey [Cloth bound]	1.65
5.	Doolittle's Scientific Queen-Rearing	1.75
6.	Dr. Howard's Foul Brood Book	1.10
7.	Advanced Bee-Culture	1.30
9.	Bienen-Kultur [German]	1.20
11.	Rational Bee-Keeping [Paper bound]	1.75
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13.	Bee-Keeping for Profit	1.15
14.	Convention Hand-Book	1.15
15.	Poultry for Market and Profit	1.10
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35.	Silo and Silage	1.10
36.	Winter Problem in Bee-Keeping	1.30
37.	Apiary Register (for 50 colonies)	1.75
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For a limited time we wish to make our readers a **special offer** on booklets on Bees, Poultry, Health, etc. Upon receipt of **75 cents** we will mail any 6 of the list below; and **for $1.25** we will mail the **whole dozen**;

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2.	Poultry for Market and Profit	25c
3.	Turkeys for Market and Profit	25c
4.	Our Poultry Doctor	30c
5.	Capons and Caponizing	30c
6.	Hand-Book of Health, by Dr. Foote	25c
7.	Kendall's Horse-Book	25c
8.	Rural Life	25c
9.	Ropp's Commercial Calculator	25c
10.	Foul Brood, by Kohnke	25c
11.	Silo and Silage, by Prof Cook	25c
12.	Bienen-Kultur, by Newman	40c

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Chas. F. Muth & Son, Cincinnati, Ohio.

Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Best Width for Sections.

Query 54.—What is the best width for 4¼x4¼ sections?—Iowa.

J. A. Stone—1⅞.

A. F. Brown—1¾.

W. G. Larrabee—1⅞.

E France—I like 1⅞.

Mrs. L. Harrison—1⅞.

Chas. Dadant & Son—1⅞.

R. L. Taylor—7 to the foot.

H. D. Cutting—I prefer 1⅞.

Rev. M. Mahin—Two inches.

Dr. C. C. Miller—Perhaps 1¾.

Dr. A. B. Mason—I don't know.

G. W. Demaree—I prefer the 1¾.

G. M. Doolittle—I do not use them.

J. M. Hambaugh—1¾ or 1⅞, I believe.

P. H. Elwood—1⅝ if glast, and about 1⅞ if unglast.

Prof. A. J. Cook—Not any particular. 1 5/7 is perhaps the best.

Emerson T. Abbott—The kind which suits you and your market is the best for you; they might not be best for me.

C. H. Dibbern—That is quite a serious problem with most bee-keepers. I use 1¾ wide, with wood separators, and like them well.

Dr. J. P. H. Brown—If nice, even combs are desired, then have the sections from 1½ to 1¾; 1⅝ may be the best for the majority.

Eugene Secor—If separators are used (which I advise) sections need not be narrower than 7 to the foot; 1¾ and 1⅞ make nice sections.

J. A. Green—7 to the foot suit my supers. This is a fraction less than 1¾, which is about the right width to use with separators. If separators are not used, I would prefer 1½.

J. E. Pond—I don't know. It will depend upon the hive in use. I prefer 1⅞, but perhaps 1¾ will be just as good; but 1⅞ gives nearly or about 16 ounces of honey to the section.

Queens and Queen-Rearing.—If you want to know how to have queens fertilized in upper stories while the old queen is still laying below; how you may *safely introduce* any queen, at any time of the year when bees can fly; all about the different races of bees; all about shipping queens, queen-cages, candy for queen-cages, etc.; all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know—send for Doolittle's "Scientific Queen-Rearing"—a book of over 170 pages, which is as interesting as a story. Here are some good offers of this book:

Bound in cloth, postpaid, $1.00; or clubbed with the Bee Journal for one year—both for only $1.75; or given free as a premium for sending us *two* new subscribers to the Bee Journal for a year at $1.00 each.

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IT SELLS ON TASTING.
The Honey that Suits All Who Buy It.
Low Prices Now!

We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 7½ cents per pound; 2 cans in one case, 7 cents; 4 cans (2 cases) or more, 6½ cents. The Cash MUST accompany each order. **Fine Basswood** Flavor Honey at same price; also in 270-lb. barrels.

☞ A sample of either honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

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Operates two sawmills that cut, annually, eight million feet of lumber, thus securing the best lumber at the lowest price for the manufacture of

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They have also one **One of the Largest Factories** and the latest and most-improved machinery for the manufacture of

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I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now.

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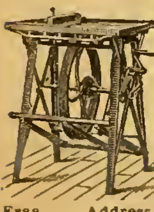

Read what J. I. PARENT, of CHARLTON, N. Y., says—"We cut with one of your Combined Machines, last winter 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will. Catalogue and Price-List Free. Address, W. F. & JOHN BARNES,
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	5lb	10lb	25lb	50lb
Alsike Clover	.70	$1.25	$3.00	$5.75
Sweet Clover (white)	.60	1.00	2.25	4.00
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Crimson Clover	.55	.90	2.00	3.50

Prices subject to market changes.
Add 25 cents to your order, for cartage, if wanted by freight.
Your orders are solicited.

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TRANSFERRING MADE EASY

If you contemplate buying either three or five band Italian Queens, simply write for my pamphlet. If you need some of the best now, send 75 cts. for one, $4.00 for six, or $7.50 per doz.—and full instructions for introducing, as well as the best methods known for securing good cells will be sent free.
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It is full of information. ☞ Write for it.

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APIARY—Glen Cove, L. I.

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Egg Preservative

That will keep Hen's Eggs perfectly through warm weather, just as good as fresh ones for cooking and frosting. One man paid 10 cents a dozen for the eggs he preserved, and then later sold them for 25 cents a dozen. You can preserve them for about **1 cent per dozen.** Now is the time to do it, while eggs are cheap.

Address for Circular giving further information—

Dr. A. B. MASON,
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General Items.

Swarming—Lots of White Clover.

Bees are swarming lively. I had 14 swarms the last week. There is lots of white clover this year.

G. E. NELSON.
Henry Co., Ill., June 20.

Hoping for a Big Crop.

Bees are doing fairly well. There is plenty of white clover, but we have had some cold weather. I hope for a big honey crop.

CHARLES LEHNUS.
Kankakee Co., Ill., June 21.

Rolling in the Honey.

My bees are rolling in the honey as never before from white clover and raspberry. Linden is not yet in bloom. I have 65 colonies.

WM. C. HUDNALL.
Fulton Co., Ill., June 16.

Good Honey Flow.

Our honey-flow is good. I never had a better prospect for honey. White clover is flourishing everywhere.

D. J. BLOCHER.
Stephenson Co., Ill., June 19.

Piling in the White Clover.

The bees are piling in the white clover honey at a great rate. This is the best show for honey I have seen for ten years. Success to the "Old Reliable."

JAS. ARNOT.
Lafayette Co., Wis., June 19.

First Case of Comb Honey.

I took off our first case of comb honey to-day—white clover. The last two or three weeks of dry weather has cut the clover short. Basswood will be in bloom next week.

J. M. YOUNG.
Cass Co., Nebr., June 21.

White Clover Blooming.

My bees are doing fine, and honey is coming in fast. I wintered 5 colonies, and have increast to 8, with some more to follow soon. White clover is blooming in fine style.

M. W. BEIGHTS.
Buena Vista Co., Iowa, June 17.

Expecting Biggest White Clover Yield

I couldn't keep house without the American Bee Journal. I wintered 9 colonies without loss, and have them running over with bees. I am looking for the biggest white clover honey crop in years. There are 1,000 acres of pasture within two miles of my apiary that is a solid bed of white clover, which is just in full bloom. I can hear the roar of my bees when 20 rods from the yard, as they hustle out after their loads of sweets.

So far I have had but one swarm. I gave supers early, and as soon as the bees began to cluster in front of the hive and show signs of overcrowding I raised up the supers and put on a second, and smoked the bees inside. I found the first supers were about half filled with fine white clover honey. If I

A Good Start

for the seasons operations on the farm, and one which will yield the most satisfying returns is to thoroughly renovate and rejuvinate the system by the aid of that time tested and reliable remedy

Warner's Safe Cure

It quickly corrects that clayed condition of the liver so productive of Biliousness and Dyspepsia after the long winter of inactivity. In addition to the above good qualities it is a positive cure for

BRIGHT'S DISEASE
URINARY TROUBLES
FEMALE COMPLAINTS
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AND MALARIA.

Beware of substitutes. There is nothing "just as good" as Warner's Safe Cure.

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Vital Water!

Has never failed to cure Blood and Skin Diseases. The effect of Vital Water upon diseases of the Kidney and Liver is magical and permanent. Send for FREE pamphlet.

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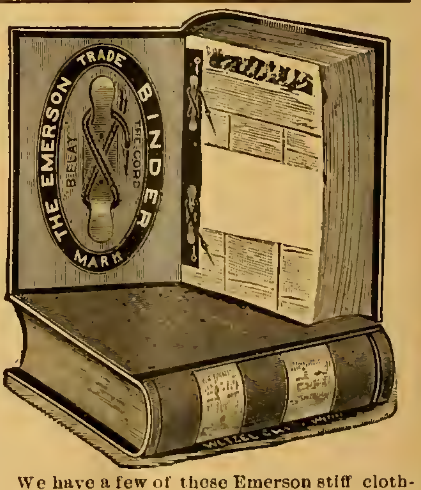

We have a few of those Emerson stiff cloth-board binders for the American Bee Journal. They make a splendid permanent binding, and hold a full year's numbers. The old price was 75 cts., postpaid, but we will mail you one for **only 60 cts.**, or with the Bee Journal for one year—both together for $1.50.

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For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 24 cents per pound, CASH; or 27 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly**, for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,

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One Cent invested in a postal card will get my large Catalog of All Root's Goods. Send list of what you want, and get price.
M. H. HUNT, Bell Branch, Mich.
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BEE-KEEPERS! Let me send you my 64-page Catalog for 1897.
J. M. Jenkins, Wetumpka, Ala.

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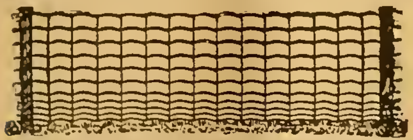

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J. M. YOUNG,
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can keep the balance of my colonies from swarming until July 1, I expect to get nearly 500 pounds of white clover honey.

We have a second honey-flow in this section from smartweed, which comes up and covers the stubblefields after harvest. Last year I secured nearly 50 pounds per colony from that source. I find as ready a market for this dark honey as for the choicest white clover honey, many preferring the smartweed honey, especially after it is well ripened.

E. O. COLE.
Ida Co., Iowa, June 17.

Iowa Coming Back.

My bees have increast from 17 colonies, spring count, to 40. I have young swarms that were hived the first day of June that have stored 100 pounds of white clover honey. Iowa is coming back to where it used to be for honey.

H. J. LANG.
Jones Co., Iowa, June 19.

Gathering Honey Very Fast.

Bees are gathering honey very fast now, and I think the flow will be good. I have 180 colonies, and they are keeping me very busy at present.

H. T. HAGLER.
Macoupin Co., Ill., June 17.

Bees Doing Nicely.

The bee-keepers here tell me that bee-keeping in Kansas is not a success. This is my first year, and my bees are doing nicely so far. They are working on alfalfa, wild flowers and buckwheat.

MRS. LIZZIE IRELAND.
Republic Co., Kans., June 21.

On a Swarming Spree.

My bees are on a swarming spree. I had seven swarms come off to-day at one time—three second and four first swarms. They all settled in one cluster. It was the largest bunch of bees I ever saw. They would have filled a washtub even full, or more. I will tell some other time what I did with them, as they commenced to ball the queens and fight all over the apiary.

I believe that I can take a thousand pounds of honey from my bees now. They have filled two-thirds of the brood-frames and capt it over—all white clover honey, and I believe it will stop the swarming.

J. Q. SMITH.
Logan Co., Ill., June 12.

Prospects in Maryland.

Please accept my thanks for making the Bee Journal what it is, and for exposing fraudulent commission men. I know what, or how, they "pull" one if they can. I had some "pull" me in Pittsburg and Philadelphia last summer, on peaches.

The bees seem to be rolling in the honey from somewhere, but not from white clover, for it is seldom I can see a bee on it. There is more small white clover this summer than I have seen for 20 years, but the bees don't visit it any. We have several acres of Alsike clover, and the bees are making good use of it. It is something new for our neighbor farmers, and it looks so well, and has such a fine growth which pleases them

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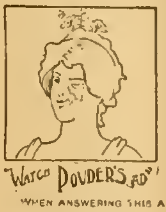

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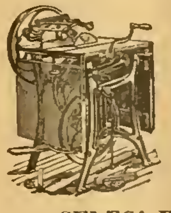

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so that some of them say they will sow several acres of it next spring.

The most that is against our bees is that we have such a cool summer, cloudy and rainy. Our bees swarmed early—they commenced April 28, I think. Now they are about over the swarming fever. I hope so, anyway, for I did not want any swarms. Things are looking very encouraging for bee-men and farmers. We never had a better prospect for a crop of fruit, plenty of apples, berries and peaches. L. A. Hammond.

Washington Co., Md., June 14.

Swarming Freely.

Bees wintered well in this section, and came out strong in the spring, but we have had so much cool weather that they are not doing much as yet. There is more white clover this spring than we have had for years, yet bees do not seem to work on it. Perhaps as the weather warms they will do better. They are swarming freely.

John H. Whitmore.

Jackson Co., Mich., June 23.

An Excellent Bee-Country.

It is nearly 15 years since I saw the American Bee Journal. But I find it as profitable as it used to be. I used to reside in Utah. My old father and I were the first, or among the first, bee-men there were in Utah. I have moved to Idaho, and I find we have an excellent bee-country, second to none in the West. We have a wonderful amount of honey-producing plants, also very heavy honey-dew falls, which collects on the willows and trees in the fall. Alfalfa, sweet clover, and the tall white clover all grow very extensively in this section.

Joseph E. Morgan.

Fremont Co., Idaho, June 21.

Good Price for Extracted Honey.

My bees are doing fine. I have 32 good, strong colonies up to date, I took about 700 pounds of honey up to the first of June, mostly extracted; this I have sold for on an average of $10.25 per 100 pounds. How is this for extracted honey?

I cannot do without the "Old Reliable." B. F. Weast.

Rutherford Co., N. C., June 14.

Fine Alfalfa Honey in Georgia.

This is my second year in the "bee-business." I follow it almost altogether for pastime, and am very much charmed with it.

We had a fine flow of white honey this spring, gathered, I think, from about 25 acres of alfalfa—the only crop of this plant that I know of in this portion of the State. The honey was the finest in color and taste it has ever been my fortune to enjoy. It was pronounced by Dr. J. P. H. Brown as being as fine as he had ever seen. Dr. Brown is the "father of bee-culture" in this section, and has been of great service to me as a beginner, giving me the best of advice and information at all times.

I look for the American Bee Journal each week with great pleasure.

T. H. Sherman.

Richmond Co., Ga., June 19.

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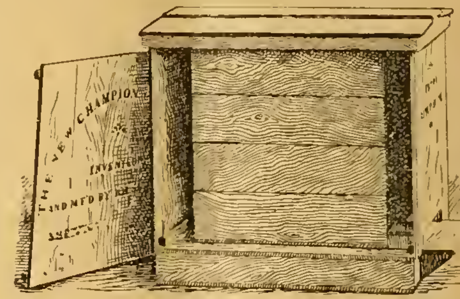

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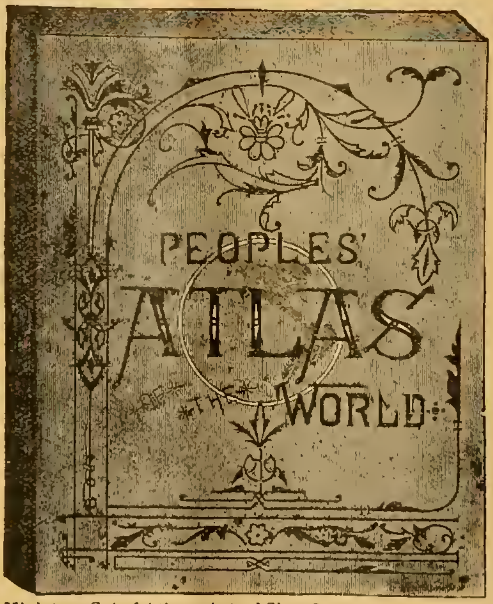

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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., June 14.—Fancy white, 12@13c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 7@8c.; fancy dark, 8c.; No. 1 dark, 5@7. Extracted, white, 5@7c.; amber, 4@5c; dark, 3½@4c. Beeswax, 26@27.

Not any new comb honey in market. Extracted very slow of sale.

Philadelphia, Pa., June 14.—Fancy white, 13@14c.; No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 8@9c.; No. 1 dark, 7@8c. Extracted, white, 5@6c.; amber 4@5c.; dark, 4c. Beeswax, 25c.

New honey has commenced to arrive. Very little call at present. To-day is very dull. Prospects are for very low prices. Biggest honey crop in 10 years.

Milwaukee, Wis., June 14.—Fancy white, 13@14c.; No. 1 white, 11@12c.; fancy amber, 10@11c.; No. 1 amber, 8@10c.; fancy dark, 8@9c. Extracted, white, 5@6c.; amber, 4@5c. Beeswax, 27@28c.

The stock of honey is working down to a small supply; especially for anything fancy. It is encouraging to apiarists to find that the more carefully and nicely honey is prepared, and the better the quality sent to this market, the more readily it will sell, and good returns follow. And new choice quality comb will sell, while the common is very hard to move at any price. We think the old stock will all be disposed of before any new crop is ready for market.

Buffalo, N. Y., June 14.—Fancy white, 10@11c.; No. 1 white, 8@9c; fancy amber, 7@8c; No. 1 amber, 6@7c. fancy dark, 6@7c.; No. 1 dark, 5@6c. Extracted, white, 5@5½c.; amber, 4½@5c. Beeswax, 20@25c.

No demand now, and we can't move any kind without pushing and cutting, but we can sell at some prices.

Kansas City, Mo., Juna 14.—No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 9@10c.; No. 1 dark, 8@9c. Extracted, white, 5@5½c.; amber, 4@4½c.; dark, 4c. Beeswax, 25@30c.

Very little old comb honey in market. No new in yet. There is considerable extracted on hand.

Boston, Mass., June 14.—Fancy white, 13c.; No. 1 white, 11@12c. Extracted, white, 7c; amber, 5@6c.

The demand for honey is light, but that is to be expected at this time of the year. Supply is also light.

Cleveland, Ohio, June 14.—Fancy white, 12½-13c.; No. 1 white, 11c.; fancy amber, 8-9c.; fancy dark, 7c.

Honey is moving very slow. We believe, however, as soon as the new crop comes in it will move much better.

Detroit, Mich., June 14.—Fancy white, 10@12c.; No. 1 white, 10@11c; fancy amber, 8@9c.; No. 1 amber, 7@8c. Extracted, white, 5@6c.; amber, 4@5c. Beeswax, 25-26c.

Cincinnati, Ohio, June 22.—Comb, 8-13c. Extracted, 3½-6c. Beeswax—demand fair at 22-25c for good to choice yellow.

Demand for comb honey is slow. Considerable of the new crop of extracted has been arriving the last two or three weeks and finds a pretty ready sale.

New York, N. Y., June 14.—Comb honey is all cleaned up now, and there is no more demand for any; could sell some nice white comb at from 10@11c., but would not advise shipping of any more buckwheat. New crop extracted is arriving quite freely from the South, and finds fairly good sale at from 50@52c. per gallon for average common grade, and 55@60c. per gallon for better grades. Expect to have new crop California here within the next two weeks or sooner.

Beeswax steady at 26@27c.

Minneapolis, Minn., June 14.—Fancy white, 12@14c.; No. 1 white, 11@12c.; fancy amber, 10@11c; No. 1 amber, 9@10c.; fancy dark, 8@9c.; No. 1 dark, 7@8c. Extracted, white, 6@7c.; amber, 5@6c.; dark, 4@5c. Beeswax, 24@27c.

Demand for extracted honey is nominal, but at fair prices. Comb very slow on account of warm weather.

San Francisco, Calif., June 9.—White comb, 9-10c.; amber, 5-7c. Extracted, white, 4¾-5¼c.; light amber, 4-4½c.; amber, 3½c.; dark tule, 2¾c. Beeswax fair to choice, 25-27c

New-crop honey has been coming forward quite freely, mostly extracted, with demand slow at full current figures, and mainly for local use. Some inquiry is being made on foreign account, but shippers' ideas of values, so far as exprest this season, are at a low range, and under any prices which have yet been acceptable to producers. This year's product, owing to its generally fine quality, should prove very desirable to European dealers, and it is hoped they will see their way clear to bid figures which will allow at least a fair remuneration to apiarists.

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Batterson & Co., 167 & 169 Scott St.

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Wm. A. Selser, 10 Vine St.

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A. B. Williams & Co., 80 & 82 Broadway.

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Westcott Com. Co., 213 Market St

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Walter S. Pouder, 162 Massachusetts Ave

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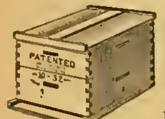

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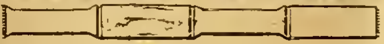

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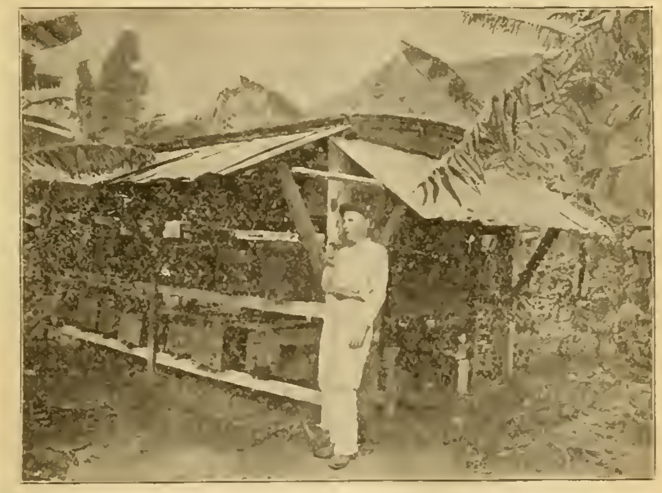
Contributed Articles

A Mexican Apiary.

Mr. F. Bussler is one of the rising young bee-keepers of Old Mexico, who is rapidly adopting modern methods and fixtures. He has very kindly sent us a photograph of his old bee-house. At the right end is a six-story Dzierzon hive; the 20 others are a modified Langstroth—some with supers and some without.

The top is from an old car, the roof-shade extended with long shingles. The big leaves shown are from the banana tree, and underneath them are coffee and cocoanut trees. The mountain in the rear is Borego. A delightful place for an apiary!



Mr. F. Bussler and His Apiary in Mexico.

Mr. Bussler himself appears on the scene. He is hopeful of getting bee-keeping well started in Mexico. We bespeak for him much success, and trust that as he leads, others may follow, until the land of the ancients may, as did another land of ye olden time, "flow with milk and honey."

Mr. B. is about to translate portions of a standard work on bees into the language used most generally in Mexico—

which we believe is Spanish. This will help greatly to familiarize the people with modern progressive bee-keeping, and tend to create a deeper interest in the care and profitable culture of the busy bee in the land of the Montezumas.

Purity of Italian Queens and Drones.

BY DR. E. GALLUP.

On page 322, John McArthur, under the head of "Purity of Italian Queens and Drones," has succeeded pretty effectually in building up a man of straw and calling his name "Gallup," and then knocking him down so effectually that he probably never will get up again.

The real Gallup believes, and knows, that bees can be improved as well as any other living animal or insect, as well as human beings. Even as far back as old Bible times Jacob understood this law to a certain extent, when he raised his ring-streakt and speckled cattle. Dr. Fowler proves pretty effectually that a mother, while pregnant, imparts the disposition and characteristics to her offspring by her own thoughts, surroundings, etc., hence one child may be of a very sweet disposition and another the reverse; one will be an architect, another the reverse, etc. Still, he does not teach that the one will be black and the other white.

Mr. Aaron Benedict went to Kelley's Island early in the spring while the weather was cold and windy, with his little 4x6 boxes of nuclei, containing a few eggs and a few bees in each box without regard to age—in all probability past the age of nursing—and he said he succeeded in rearing a few small, inferior queens, and they were as black as crows, and he attributed the fault all to the queen. And there was where the dispute came in between him and the real Gallup. He acknowledged afterwards that the queen that he reared those inferior ones from was a pure queen, but still would not acknowledge that the fault was in his methods.

Now Mr. McArthur has consigned his man of straw, that he has named Gallup, back to those times of rearing queens in small nuclei, with everything lacking to rear good queens. Well, let him stay there. No one should go back 50 years, but press forward.

Now, where did we get our Italian bees? From Italy, of course. Adam Grimm said that the most of his imported queens (and he went there and selected them) produced perfectly black drones, and smaller, if anything, than drones from our native black bees. About that time one queen-breeder advertised his bees as extra pure, for his drones were extra large and yellow—conclusive proof at that early date that they were hybrids.

Many queen-breeders are becoming convinced, and honestly so, that an Italian queen mated to a black drone affects her drone progeny to a certain extent, and I am one of that number. Here is what one says in his circular:

> "We have proved to our entire satisfaction that the fertilization of a queen affects her drone progeny. In other words, drones from an Italian queen that has mated with a drone other than her own species are not pure Italians."

Here is what another queen-breeder says in his price-list:

> "A few years ago 5-banded queens were highly praised, and largely advertised by some queen-breeders. Having a great many orders for them, we finally concluded to breed and test them thoroughly. The stock we obtained was claimed to be the original Doolittle strain. The 5-banders do not prove to be a fixt strain. Some are fairly good workers, but they seldom equaled and never surpast our 3-banded Italians in honey-gathering. We became so thoroughly disgusted with them that we discontinued breeding them. Our experience with the golden bees has been the same with many bee-keepers and breeders."

Now I will give my experience. I am not rearing bees for sale, and being well known, many queen-breeders are anxious for me to test their strain of bees, and so they are sending queens for me to test and report, and having received queens from some 20 different breeders, it gives me an excellent opportunity to compare stock or strains of bees. Nine out of ten of those that purchase, select for markings, or looks and beauty, instead of profit and production, and I must say that so far the Albinos or golden beauties, as some call them, do not come up to my standard. I am of that class who believe, and honestly, that bees can be improved, and I am not going to say, just yet, that they cannot be improved in color and markings as well as in other good qualities.

Instead of being prepared to say that I have written, or intended to write, erroneously, or am selfish in the least, as Mr. McArthur says, I have always intended to give facts. Still, I may be misunderstood at times, as it is a hard matter for me to give the whole history of bee-keeping in one short article.

I am contemplating writing an article next fall, or after the season is over, on the difference in the strain of bees I am testing. I shall not give the names of breeders in that article.

Right here I wish to publicly thank those breeders that donate queens. Orange Co., Calif.

Distinguishing Purity in Bees—Swarming.

BY DR. C. C. MILLER.

Mr. McArthur, on page 339, thinks it is ridiculous that any breeder of thoroughbred stock should describe with accuracy the progeny and yet not be able to describe the sire or dam. Does sound somewhat in that direction when you put it that way, and yet I have to see the first instance, so far as I remember, in which purity of Italian bees was described in any other way than by giving the marking of the workers. The thing that puzzles me, however, is that while he takes me to task for my ignorance, Mr. McArthur doesn't throw the slightest ray of light upon the question any more than I do. Practically, he says it's an easy thing to give the markings of a pure Italian drone and queen, but if he has given such markings, or if any one else has, I don't remember it.

Now, I'm not a scientific breeder—just an everyday honey-producer, and not always a very successful one, either—and I confess I can't tell by looking at a queen or a drone whether they are of pure stock Italian, or half black. Very likely I might know a good deal more than I do about the matter, altho I feel just a trifle skeptical as to being ever able to say with positiveness from looking at a drone whether it's pure Italian or not; but at any rate I'm anxious to know better than I now do, and I'll look with interest to have Mr. McArthur tell us in the "Old Reliable" how to diagnose a case of pure blood.

NATURAL SWARMING VS. DIVIDING.

On page 370, Mr. Faylor has the Dadants and myself somewhat mixt, or if he has us all straight in his own mind he tells things in such a way that he leaves us mixt in the minds of the readers. That is, the understanding will be that by preference my increase is made by natural swarming, little or no increase being made otherwise, while the Dadants make every effort to prevent natural swarming, preferring artificial increase. As a matter of fact, I don't believe the Dadants dislike natural swarming with the intense dislike I have for it, but for some reason they have so little natural swarming that they are obliged to resort to artificial increase. On the other hand, not one case in fifty of my increase is by natural swarming, the few cases that do occur being entirely without my wish.

Mr. Faylor is right in raising his hives ⅜ of an inch, but it will not prevent swarming in nine cases out of ten in all places. My hives are raised, not only ⅜ of an inch, but oftener half an inch or more, but it seems to have little effect on swarming. Possibly location may have something to do with it. I envy Mr. Faylor his immunity from swarming, but assure him that I have not bred up a strain of swarming bees by continued encouragement of natural swarming.

McHenry Co. Ill.

Foul Brood—Pickled Brood, or New Disease.

BY E. S. LOVESY.

While in some portions of Utah the season of 1896 a few or more colonies of bees were affected with that dread disease known as foul brood, a far greater percentage of the bees in some portions of the State were troubled with a disease which in some respects was somewhat similar to foul brood, but it was by no means as dangerous. Where proper care was observed I have not heard of any bees dying with the disease. But in some instances the bees were more or less weakened, which may have more or less affected the chances of safely bringing them through the winter.

This disease first made its appearance here last spring (1896); at least that was the first time I saw or heard of it. Many theories have been advanced as to the origin or cause of this disease. Many are of the opinion that one of the principal causes was the extreme wet, cold, backward spring that prevailed through the central part of the State last year, causing more or less loss by spring dwindling, and this in turn caused chilled brood, and many of our bee-keepers think this was one of the causes of this new bee-disease. Be that as it may, I find that after it once starts it often spreads very rapidly from one colony to another, and from one locality to another, without any apparent cause. It made its appearance early in the spring in some localities, and along in midsummer it would suddenly make its appearance ten or more miles distant in localities which had hitherto been free from the disease; and as we found it in scores of strong and hitherto healthy colonies, which were never troubled with chilled brood, is proof that there must be other causes.

It seems plausible that it floats in the atmosphere like malaria and other diseases; and while we see its effects, who can describe to us the cause?

In my experience with the disease the past season, I noticed that it ebbed and flowed. Sometimes when the bees were vigorous they would become comparatively free from the disease, and in some instances when strong colonies swarmed, the old queen in her new home when she again began to lay, the bees would be free from the disease; and afterward, if they were attackt with the disease, if the bees built up vigorously, they would not be visibly affected; but when the bees failed to build up sufficiently, the disease would sometimes use them up.

This disease is certainly contagious, and it spreads faster even than foul brood. While in some respects it is somewhat similar to foul brood, and some of our bee-keepers at first sight think it is foul brood, but it does not have that offensive smell, and it never assumes that stringy or coffee-colored appearance peculiar to foul brood. It is strictly a disease of the brood—the larvæ dies in the cell, usually after they are nearly full-grown, then the dead larvæ gradually shrivels and dries up; and when about the size of a common house-fly the bees pick them out of the hive.

Another difference between this disease and foul brood, the diseased larvæ can with care be drawn out of the cells whole at any stage of the disease, which, of course, we all know cannot be done with foul brood.

QUESTION.—Is this disease, as I have described it, the disease known as pickled brood? If so, why is it called "pickled brood?"

The disease like foul brood can be cured by transferring the bees into a clean hive on foundation. After many experiments I have discovered that a simple sprinkling of dry salt is one of the very best remedies for this and other bee-diseases. In the treatment of this disease, especially, I obtained some very gratifying results the past season with this salt remedy. Sprinkle fine, dry salt over the combs, bees and brood, and if the first dressing does not cure them, repeat it about every two weeks, until they are all right. Sometimes one dressing is sufficient. There is no need for alarm that the salt will injure the bees—it will freshen them up, and tend to keep them clean. Scatter from one to two handfuls over a colony at each dressing.

I have also found this salt remedy of material benefit for holding in check, and in preventing, the spread of foul brood. It will also assist in preventing much of the ravages of bee-enemies, which I may write up later.

While all bee-keepers are aware that foul brood is more fatal, and much more to be dreaded, than this new disease, still it does not fly around and spread to the extent that this disease does. Foul brood, like diphtheria and other diseases, is only introduced by contact with the disease, but this new disease, like typhoid and other diseases, when or where it is prevalent it floats in space, and is liable to drop and commence its destructive operations at any time without (to us) any explainable cause.

Utah Co., Utah.

"Intelligence in Bees"—A Criticism.

BY I. W. BECKWITH.

At first when I read the article with the above heading which appeared in the March number of the Progressive Bee-Keeper, I was inclined to doubt that an intelligent, logical man like G. M. Doolittle could be the author; but as he does not deny the authorship, I am compelled to admit that he wrote it. The article is composed entirely of seven positive assertions, each of which needs proof.

He says: "Bees have the same habits that they had at their creation, as permanent and unvarying as the attraction of gravitation, or any law of nature."

In that statement Mr. Doolittle denies the whole doctrine of evolution which scientists, with scarcely an exception, have endorst. When a man denies a theory which has been accepted by the learned men of the world generally, and then uses that denial to prove a point in controversy, he should give some reason for believing that he is right and all the world beside wrong.

There are a few points on which I wish to say a few words. He says: "Bees are incapable of education; they learn nothing;" but I find that whenever I move my bees to a new location they have to *learn* "where they are at;" and wild bee-hunters find that the bees *learn* where the bait is. I once put a very long, conical bee-escape over a hole in my honey-house, and after the bees had escaped through it for a considerable time they *learned* to return through it. I closed the escape for a few days, and on opening it again I found that they *remembered* as well as *learned*. Cases almost innumerable might be given to show that bees learn and remember. The fact that they cannot "learn tricks like dogs and horses" does not prove that they can learn *nothing*.

Mr. Doolittle says: "If bees possest the intelligence of the higher order of animals......they would become a curse instead of a blessing." The more intelligence dogs and horses possess the more serviceable they are, and he does not know but the same may be true of bees.

The subject of reason and instinct seems to have created a considerable interest of late in the minds of the reading public, and a writer in a late number of Natural Science attempts to show, and not entirely in vain, I think, that very many of the actions of the lower animals which have generally been attributed to instinct, are the results of education and memory.

There seems to be a popular belief among a certain class that mankind acts only by reason, and the lower animals only by instinct, and aside from that class there are probably no two persons who would draw the line between reason and instinct through exactly the same point. My own opinion is that mankind possesses the greatest amount of intelligence of any being on this mundane sphere, and yet he acts, to a certain extent, through the agency of instinct; and from man we may pass down through the whole line of animated beings and find a diminishing scale of intelligence until we reach the lowest animal life where intelligence is almost infinitesimal. I do not expect to know all this as I might a principle in mathematics, nor do I expect it to be accepted without proof simply because I have said it. I eat and drink because Nature (instinct), and not reason, induces me to do so; and so does all animal creation. I wish to move from one place to another, and *Nature* causes the proper muscles to contract and relax so as to cause my feet to carry me whither I will; and the same is true of all animals.

Nature instructs the new-born babe to draw its first meal from its mother, the same as it teaches all young animals.

I avoid the hot stove because *reason* teaches me that it will burn; and experience and reason teach most of the lower animals, at least the same lesson that I have learned.

Weld Co., Colo.

A Painful, Yet Profitable, Bee-Sting.

BY MRS. ELIZABETH GRINNELL.

I am a housekeeper by profession and practice, also a writer of stories and articles, hence I am desirous of getting all there is in life which can contribute to either of these conditions. I have therefore possest a couple of colonies of bees for a year or two, and a part of every day has been devoted to my being entertained by them. They are near my screen porch, among roses and sweet peas and orange blossoms, where I can hear them should they speak, and where I can see them while I work. I have never taken any honey from them as yet, but there are prospects. I know bees, and love them, being the daughter of a bee-keeper who kept them, and managed them on the old-fashioned scale, back in Maine, a good part of a century ago.

I also have a neighbor who loves bees. This is Dr. Chas. H. Carter, recently of Chicago, who, on account of the attractions of the climate, is living on our street. Dr. Carter and I have had many a delightful hour talking about bees and comparing blank notes.

Well, May 5 we were looking at my hives, making personal remarks about the bees, and guessing the amount of honey we should get, when an Italian crawled under my veil and kist me on the upper lip. I at once felt such nervous sensations that I could scarcely remain to help my friend replace the frames. I had been stung many times, and only laught at the effect. This time I did not laugh. In ten minutes I was swollen from head to foot, and perfectly scarlet. At first the skin was dotted with points scarcely elevated, then there were welts two inches long, white when rubbed, and stingingly sensitive. The lip itself was not painful, nor did it swell so very much. I walkt about until warned by the most violent of heart-beats that I must lie down. Then commenced a chattering of teeth, and a trembling of limbs, and a throbbing of the ears, and such a general commotion of body as to be extremely interesting to myself and the attending physicians—my husband, Dr. Grinnell, as well as Dr. Carter, remaining with me and attending me for the remainder of the siege.

After a couple of days the rash, which had departed, returned less violently than at first, and I grew gradually better, the feverish and suffering all the effects of general blood-poisoning. Such cases as this are to be found in the books, but they are rare, and so this account of mine may be interesting—not so interesting, however, as the following sequel:

I happen to carry a life and accident policy in a certain company well known in this section. When I told my attending physicians that I should request an indemnity, they smiled. However, they good-naturedly aided me, and I received a check from the company for the amount of indemnity requested. This for a bee-sting. The reason my physicians smiled was because they knew it would be a test case, and that such an accident as a bee-sting was not in the usual category of casualties.

Now, the moral to my tale is this: On going into the bee-business, procure an accident policy. When examining bees have competent witnesses present, and, if possible, a physician in good standing. Apply for your indemnity when stung, if the accident be at all serious. What came to me in consequence of that Italian honey-bee's kiss would double my stock of colonies. Of course, if the physician happens to be a family friend, his services will cost you nothing, as mine did, and you have the indemnity money free of all incumbrances.

Los Angeles Co., Calif.

P. S.—I am of the opinion that it takes a real live Italian bee to insure good any claim on the accident companies. Blacks are of no account in that line according to my experience. Their stings don't take hold like those of the Italians, and one has to make out a good case to get the indemnity.

E. G.

Popular Honey-Packages and Organization.

BY J. H. MARTIN.

In discussing the small-package subject I wish to first refer to the improvements in the production of comb honey. The most of us can remember when comb honey was taken from the hives in 12-pound boxes, and the consumer was then glad to get it in that shape. The next improvement was a 3 and 5 pound box with tin covers, and glass on all four sides. This was a popular package in some markets, and was an improvement over the 12-pound box. Next came the Harbison 2-pound section, and Mr. Harbison had the honor of shipping the first carload of honey put up in that shape to the Eastern markets. When these nice sections were placed upon the Eastern markets there was a great demand for our honey. Grocers in every town of any considerable size advertised California honey, and in those days California bee-keeping paid as it never has since.

About, or soon after, the introduction of the Harbison section, the honey-extractor was invented and liquid honey was put extensively upon the market. Mr. Harbison did not introduce extractors into his apiaries. He urged that the introduction of so much liquid honey in the markets of the world at such low prices as it was then sold at wholesale would degrade the price of comb honey. When liquid honey was sold at wholesale even at 7 or 8 cents, he claimed that comb honey would drop from its high standard of 20 to 25 cents to approximate somewhere near the lower product. Mr. Harbison was using his patented hive; it was not adapted to the use of the extractor, and bee-men, or those directly interested in the use of extractors, accused Mr. Harbison of selfish motives in his opposition to the use of the extractors. But time and the logic of facts indicate all good ideas, and Mr. Harbison was right. If the honey-extractor had never been invented, the bee-keeping interests would have been better off to-day.

In expressing this opinion in relation to the extractor I am viewing present conditions, but not forecasting the future.

I am aware that the argument is abroad that while comb honey is always a luxury, used only by the few, that the low price of extracted honey enables the poor man to indulge in a sweet that he would otherwise be deprived of; but how much pure extracted honey does the poor laboring man get when the product is put up by packing houses in our cities? Right here let me make a statement that may be surprising, but nevertheless true, viz.: that our wonderful honey-extractor has been of more benefit to the manufacturers of glucose than to bee-keepers. In the absence of the extractor there would have been no glucosed honey. There would not have been such a great amount produced, while the price would have been held within the lines of supply and demand, and prices would have been better.

However, we have the extractor and millions of pounds of extracted honey, and what are we going to do about it? Now the only way I see out of the trouble is through legislation, in the improvement of our packages, and in the organization of exchanges—for only through organization can anything be accomplisht.

In the matter of improvement of honey-packages, if we trace the comb-honey business a little further we find the next improvement was the introduction of the 1-pound section. Now a great many claim that bees will store more honey in a 2-pound section than in a 1-pound, tho the statement seems to be largely a matter of opinion. We do know, however, that it will not pay to use a smaller section, hence it may be said that we have arrived at perfection in comb-honey packages.

If we now turn to our extracted product we find that we have no uniform or special package in which to place our honey. I regard the Muth jar as coming the nearest to it, but even that is used to a limited extent, while upon our markets the fruit-jars are largely used. The great bulk of our honey is sold in 60-pound cans, to be repackt as already stated, or to be used for manufacturing purposes. I claim that we shall need for the successful sale of our extracted honey just as uniform and popular a package as the 1-pound section is for comb honey, and that all of our best grade should so be put up. The producer can hardly be trusted to put his honey up in a uniform shape; it should therefore be done at some central point by an association of bee-keepers. The benefits to be derived from such a uniform putting up of honey would be that we would open up an entirely new market, and at the same time avoid the conflict with the local or commission dealers, as we inevitably do when selling in bulk.

An important point in selling honey is fixing the selling price in the Eastern markets, and notably in Chicago. If the commission-men were all reliable, the bee-keepers would have no cause of complaint, but when irresponsible parties are permitted to handle big amounts of honey demoralization of prices will ensue. I think that we can safely say that the commission business, as largely conducted in Los Angeles and elsewhere, has its "peculiarities," and that is not the worst feature of it—we producers are in a measure responsible, because of the support we give it.

Finally, can we through organization overcome these many evils? I think we can—in fact, I know we can; but there is a big "if" in the problem. *If* bee-keepers will hold together in an organization for the furtherance of their own interests; and *if* they do, a few years will see a vast improvement in the honey industry, and better prices. The only remedy is organization and marketing our produce in uniform and popular packages.—Rural Californian.

Los Angeles Co., Calif.

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Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offers on page 417.

CONVENTION PROCEEDINGS

Report of the North American Convention Held at St. Joseph, Mo., Oct. 10-12, 1894.

REPORTED BY LOUIS R. LIGHTON.

[Continued from page 407.]

The report of the Auditing Committee was read and accepted.

QUEEN-REARING.

The paper, "The Most Economic Way to Breed Queens Consistent with Prolificness and Longevity," by Dr. J. P. H. Brown, of Georgia, was read by Dr. Miller. [This paper is still in Mr. Benton's hands.—Ed.]

Mr. Holtermann—I will confess that I have gone to a great many conventions, and hoped to hear a thorough paper on queen-rearing, and altho valuable points may have been opened up I have failed to hear a thorough paper on queen-rearing, and I hope that in the no distant future we shall hear a thorough paper on this subject, one that will go into the details as to how to do these things. I must confess I would like information in that direction. There is a little point that came to my attention this season. Of course I don't know everything that is written about bee-keeping, and I think sometimes I have just read a thing that I have not read before. Perhaps I have. I think there is a fixt time given after making the colony queenless to give it the larvæ. I have made up my mind that that is a mistake, and that when the bees get that "queenless hum," that is the time to give them the larvæ for queen-rearing, no matter whether it is in two hours or three days. That is a new point to me.

Dr. Miller—I do sincerely hope that Mr. Holtermann's wish will never be granted, that we will have a full and complete paper before this convention in regard to queen-rearing. But if he knows any one in this country, or any other country, that he thinks will do it better than any one else, I should be glad to have him get the paper and then publish it in the bee-periodicals, and then if there is anything left for discussion it can be discust in print; but don't let it rest until we have it here for discussion. I think it is a mistake to make a colony queenless, and then in just so many hours give a queen to them. Sometimes a colony will notice at a very early stage that it is queenless, and I do not think the right way is to fix the hour, but when the colony commences to build queen-cells, that is the proper time, and the fixt time.

Mr. Holtermann—I don't think we will ever have the exhaustive paper on queen-rearing before this convention. If we did, we would all go home and rear queens ourselves, and then where would the queen-rearers be?

Dr. Miller—As to the point Mr. Holtermann makes there is something in it. After a good deal of experience in queen-rearing—and, by the way, I don't believe it is correct that the queen-rearers want to keep their secrets to themselves—I am inclined to the opinion that I am safe in not paying any attention whatever to the time when bees are ready for their larvæ; and yet I don't quite agree with the views exprest by Mr. Holtermann. If a colony is made queenless, and they have brood in all stages, I have found it an almost universal rule that in about 12 days from that time they would have a queen hatcht out, showing that they select a young enough larva.

Dr. Miller—I move you, Mr. President, that the National

Bee-Keepers' Union be askt to make a report on the doings of the organization. Carried. [This Report was publisht in 1894.—Ed.]

The convention then adjourned until 2 o'clock p.m.

THIRD DAY—Afternoon Session.

A 2 p.m. the convention was called to order by Pres. Abbott, and upon motion the Question-Box was again taken up.

AN ADVANTAGE OF CONVENTIONS.

Dr. Miller—I want to make an observation which may apply to some here. It is a common thing to find out some valuable points at a convention that we could not get elsewhere. Here is a man out on a farm who does not say very much about bees, and does not write anything about them because he thinks he cannot write a very elaborate article, and so he keeps quiet. He might know something that I do not know, but want to find out about. This is a kind of a one-sided affair for you to get all of the good things and keep your mouth shut about what you know, and not give the good things to others.

Pres. Abbott—Mr. Dadant said that he had gotten enough information on one point at this convention to pay his expenses here.

Mr. Dadant—That is in regard to the sugar-cake for wintering bees.

Pres. Abbott—I use the least amount of water that will melt up the granulated sugar. I melt it thoroughly until it is dissolved, boiling it very carefully until it will stay in a hard cake like maple sugar. You can tell when it gets that way by dropping it in water. The cake will weigh about seven, eight or nine pounds, and I put a couple of sticks under it to keep it off of the frames and make a bee-space under it. There is one thing you want to do, and that is stir the sugar while it is melting to make it granulate so that it will hold moisture, and the bees can work on it better.

Mr. H. G. Barber, of the State University at Lincoln, Nebr., assistant of Prof. Bruner, was introduced to the convention by Mr. Benton.

Mr. Barber—I am sorry that I cannot say very much that will be of benefit to you. Mr. Bruner is the entomologist, and I his assistant, having charge of his bee-work. We have had a very poor year. We started out in February, purchasing five colonies, but have not brancht out very much this year. We lost one colony through accident. I came here to learn what I could, and have been very much pleased to have this opportunity to listen.

Dr. Miller sang the "Land of the Leal" and a negro spiritual song, after which the convention closed its Quarter Centennial meeting by all singing, "Blest Be the Tie that Binds." Louis R. Lighton, *Reporter*.

The Horse—How to Break and Handle.—This is a pamphlet of 32 pages, giving complete instructions for breaking and educating colts, teaching horses to drive, and for use under the saddle, together with many instructions which have never before been publisht, and which are the result of the author's experience covering a period of 20 years. By Prof. Wm. Mullen, with whom the editor of the Bee Journal is personally acquainted. Price, postpaid, 20 cents; or given as a premium for sending us one new subscriber to the Bee Journal for the rest of the year at 50 cents.

◆

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

A Clipt Virgin Queen.

A friend of ours clipt the wing of a virgin queen that issued with an after-swarm or second swarm. What will the result be? Kansas.

Answer.—The probability is that he will have a drone-laying queen. Possibly she may never lay. But it may happen that the queen was fertilized at the time the bees swarmed, in which case the queen will be all right. As you put the question, however, a *virgin* queen, there can be only one result—the ruin of the colony.

◆

A Case of Laying Workers.

Three weeks ago I hived a small swarm of bees (about a quart measure full), but could find no queen. Now they have sealed brood in drone-cells, and in some of the unsealed cells which I examined with a strong glass shows as high as 15 eggs in one cell, and that is what I cannot understand. They have no queen yet, but two cells started. Novice.

Answer.—Sorry to say you have a case of laying-workers. The best and cheapest thing is to break up the whole business at once, giving the combs and bees to other colonies, or uniting the colony with some weak colony that has a normal laying queen.

◆

Brood-Combs Filled with Pollen.

I notice some of my brood-combs have cells full of pollen. Is there any way to get it out so that the queen can use them? Kansas.

Answer.—The queen cannot put eggs in cells that contain either pollen or honey, and the remedy is the same in both cases. Just let them alone and the bees will empty out both when the right time comes. Beginners too often undervalue pollen. Bees cannot get along without it, and it's worth as much to them as honey. A strong colony ought to have on hand enough pollen to fill pretty well one comb. Better let them manage the pollen business. If it's any comfort to you to see the pollen emptied out of the cells, just take a comb filled with pollen from one side of the hive where you find it in a strong colony, put it in the middle of the brood-nest and look some days later to see how much pollen is left. But it's a great deal better to leave it at the side of the hive where the bees placed it.

◆

Perhaps Bee-Paralysis.

I have one 3-frame nucleus that I ordered from the West June 1. I notice every warm day that some of the young bees walk out of the hive before they can fly. Some of them act as if they wanted to fly, and some of them tremble a little. I seldom have seen one of them return to the hive. They will be very quiet for awhile, and then they get restless and run and hop about. I have never read or heard of bees acting that way, so I concluded I would ask if you could tell what is the matter with them, and if there is any way to stop it. West Virginia.

Answer.—As you describe it, the case sounds just a little like paralysis. If that is the case it may not be very destructive, altho farther south it becomes very bad. As yet there seems to be no sure cure. Remedy after remedy has been announced as a sure cure, but upon next trial the remedy failed. The latest given is one in Gleanings, and may be worth trying. It is to throw some strange bees into the hive, the theory being that in an affected colony the bees don't like to throw out their sick sisters, but strange bees are not so tender-hearted, and will hustle them out without ceremony. The report states that a cure has been effected by merely making a diseased colony change places with a healthy one. Of course that would throw a big lot of strange bees into the diseased colony.

A Plan for Swarming-Time.

When my next swarm issues I am going to try a plan which I do not know of any one trying, and would like your opinion of it through the "Old Reliable." I have nuclei with laying queens with clipt wings. I shall hive the prime swarm in the regular way, and remove queen-cells from the old hive, and exchange some of the best with a nucleus for a queen, hoping to avoid the danger of losing an after-swarm, and also to save myself the time lost in looking for a young laying queen in a full colony to clip her, when I can find her in a minute in the nucleus.

We have had a good flow of white clover honey for the past two weeks, but with no rain through this section of country, hundreds of acres of white clover is turning brown, and seems to be nearly dead. There is considerable basswood along the "Weeping Water," which will be out in about a week, and we hope for a rich yield of nectar from that. I believe if those bee-keepers who do not provide water for their bees, could see mine just swarm around the dishes filled with sand, with water constantly dropping into them (the dishes, not the bees), both fresh and salt water, they would decide that it pays to water them in their yard. NEBRASKA.

ANSWER.—I doubt if you'll like the plan. In altogether too many cases, if you give a laying queen to the mother colony, they will swarm again before long.

Bees Declining to Work in the Super.

Why is it that when taking off honey and putting sections on again the bees do not work? KENTUCKY.

ANSWER.—I'm not so sure that I understand just what your question means, but probably that when bees are busy at work in the sections a super of filled ones is taken off and an empty one put in its place, and the bees that were busy in the finisht super don't begin work in the empty one. It is hardly correct that the bees stop work just because their finisht super has been exchanged for an empty one. The rule is that they will go right to work in the new super, provided there is any work to do. If they do not, it must be because the honey-flow has slackt up, and in that case they would have stopt as well if the old super had been left on. Indeed, it is very little they can do for the last few days in the old super, merely sealing over the last few cells. But a super about finisht should never be left on alone. When it is about half filled, if the honey-flow is good, raise it up and put an empty one under it, and see how promptly the bees will commence in the new super. But if it is near the end of the honey-flow, and you don't know whether another super may be needed or not, then put the empty super on the top of the partly-filled super, and the bees will not use it unless they need it.

Something for an Orchard Plant and Shade.

1. What would be a good plant to put in the orchard combining these two points: first, as a fertilizer when turned under green; second, a good honey-producer? We live in a dry country, as a rule, with light sandy soil about two feet deep, with a stiff clay subsoil.

2. Would the castor-oil plant be a good thing to plant near hives for shade purposes during the summer months?

Our bees are not doing much in the way of honey-gathering, but every hive is full almost to overflowing with young bees. The supers have been on for the last six weeks with thin surplus starters, but they have not made a start to work on them yet. TEXAS.

ANSWER.—1. Isn't it a pretty hard thing to have a plant to turn under green and have it produce a crop for the bees also? Buckwheat is good for either purpose, but the same sowing will hardly do for both purposes, for if turned under as a fertilizer it will be at or before the time of blooming. Alsike clover might do to turn under after blooming, but it might not succeed well on your land. Possibly some one else may know more about it.

2. I doubt whether you would be greatly pleased with the castor-oil plant for shade. For the bees it will be as well to put a good armful of coarse grass on each hive, weighing it down with two or three sticks of stovewood. It will remain there all summer. For the operator a sheet fastened to four poles stuck in the ground will perhaps be better than the castor-plant.

An Insect Supposed to Kill Bees.

I to-day send you an insect which has destroyed one of my best colonies of Italian bees. It killed the bees, some by biting, and some by stinging, and so quickly I never saw the like of it. I killed it just as it was finishing up one of my best colonies, of which not over 100 bees lived. What is its name? Is it common in this part of the country? MINNESOTA.

ANSWER.—The insect received appears to be a bumble-bee, and could hardly be the cause of so much mischief. There must be some mystery or mistake about the case. I know of no insect in the North that is so destructive to bees.

Getting Drawn Combs Built.—Mr. Isaac Lundy, of Canada, gives his method in the June Review, as follows, for the getting of drawn comb at the time of the white honey harvest:

One of the most important things to do to obtain success is to use a *strong* colony to do the work, and it is best to see if there are such about the time of fruit-bloom. If not, strong colonies can be built up by feeding, or with combs of hatching brood, etc. As the above causes some considerable work and also causes the apiarist to sometimes wait (for strong colonies to be built up) until after the drawn combs are needed, I have been looking for better and more satisfactory methods, and will now try and describe a method whereby I have attained much better results, with much less labor, making it possible to secure the necessary strong colonies in a few hours' time. The plan is as follows:

A few days before the time to put the supers upon the bees, I select two good colonies, or as many pairs as will be needed to secure the required number of drawn combs, that are sitting side by side (my hives sit in pairs); and over the entrance of one hive of each pair I place a cone bee-escape, thus preventing the returning bees from entering their own hive. They will readily enter the twin hive, thus making a powerful colony, in the right condition to take possession of the supers, which should have previously been supplied with partly-filled sections of comb left over from the last honey-flow. As soon as the super is well occupied by the bees, add at once underneath the first super put on, another super of sections containing *foundation only*, which will soon be converted into beautiful drawn combs.

Of course, in some seasons, and in some localities, drawn combs can be secured from the fruit-bloom, but with not so much satisfaction, as the weather is often quite cool, a condition very unfavorable for comb-building. If, however, you should try to secure drawn combs from fruit-bloom, I would advise only one super remaining upon the bees at a time, and that should contain enough "bait" sections only to induce the bees above.

I have been using the same bee-escape for the prevention of after-swarms to the exclusions of all other means.

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

The American Bee Journal
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Next Annual Meeting at Buffalo, N. Y., Aug. 24–26, 1897.

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Editorial Comments.

The Michigan Experiment Apiary, which has been so successfully conducted at Lapeer, by the Hon. R. L. Taylor, for several years, has recently been removed to the State Agricultural College grounds, near Lansing, the capital. The June Review had this notice concerning it:

> The bees belonging to the State have been moved back to the College, and put in charge of a young man by the name of Jno. M. Rankin, from St. Clare county. The idea is to centralize, to have all of the branches possible at the College. The Director of the Station is anxious to build up an apiary of which they can be proud, as they are of their stock in other lines. Mr. Rankin is well-informed, and a practical man, and I think that he will eventually build up an apiary that will be an honor to the State. Steps are being taken to investigate bee-paralysis, and as there is a most competent bacteriologist at the College, it is to be hoped that something reliable and practical may be done.

◆

The Buffalo Convention Program is now issued, and will be mailed free to all the present members of the United States Bee-Keepers' Union. Those who are not members can get a copy of it by sending 5 cents to the Secretary—Dr. A. B. Mason, Sta. B, Toledo, Ohio.

We believe this is the first program of a bee-convention that has been sold—heretofore they have always been distributed free, but only during the sessions of the convention.

But when it is known that the Buffalo program is a 16-page pamphlet, about 6½x10 inches in size, it will be readily seen that the Union could not afford to distribute it free outside of its paid membership.

Besides the names of the essayists and their subjects, there are six bee-songs—words and music—which ought to be learned and sung in every bee-keeper's home. Why, the first five songs (written by Dr. Miller and Mr. Secor) alone are well worth $1.00—and you can get the whole thing for only 5 cents.

But, really, the best way is to get it *free*—by sending your $1.00 membership fee to Secretary Mason, who will mail you both a receipt and a copy of the Buffalo program. Or, send your dollar to the Bee Journal office, and we will see that Dr. Mason sends the receipt and the program.

Come on with your membership fees.

◆

That Home Market for honey ought to be revived now. Better a thousand times sell your honey to your neighbors and friends, who you know will pay for it, rather than ship it off to strangers who may swindle you out of a good share of it. Better take less money for your honey, and get it, rather than attempt to get a high price—and then be disappointed.

◆

The Central Texas Convention will be held at Cameron, July 16 and 17, 1897. Excursion tickets will be sold on the railroads on the certificate plan. When purchasing your ticket to Cameron, you pay the full fare and take a receipt therefor; then when signed by the Secretary at Cameron, the return fare will be but one-third, provided 50 are present with certificates.

On the program are the following:

Welcome Address, by Judge J. M. McGregor.
Response, by Judge E. Y. Terral.
"Honey-Dew," by C. B. Bankston.
"Contradictory," by S. D. Hanna.
Essay, by Mrs. Mary Gordon.
"Ancient and Modern Bee-Keeping," by Judge E. Y. Terral.
"Extracted Honey," by A. C. Aten.
"How Bees Deposit Pollen in Cells," by E. R. Jones.

The following subjects will also be discust: "Best Race of Bees for Texas; "Comb Foundation;" "Losses of Bees," and "What Hybrid Bees are Best for Comb or Extracted Honey?"

Each paper will be criticised by S. D. Hanna. No hotel bills. Everybody is invited.

◆

Keep Grass and Weeds Down.—Mr. Doolittle gives this excellent advice in the June Progressive Bee-Keeper, about keeping grass and weeds down in the apiary:

"One of the most common things to be seen in many apiaries at this time of the year, where the hives set within a few inches of the ground, as all hives should, is grass and weeds growing up in front of the entrance, with the bees heavily loaded with honey or pollen struggling to reach the hive, first with the wings, then on foot, then taking wing again, or crowding through a tangled mass of stuff that they may reach home with their precious loads, the result often being many loads of pollen left behind when at their very door. This not only causes them much extra work, wearing their precious lives out much sooner, but it is a waste of time to them, often amounting to nearly a pound of honey each day, as I have proven to my satisfaction with hives on scales, putting an obstruction before the hive one day, and taking it away the next. To be modest, call the average loss only one-half pound, and we have 50 pounds as the loss in an apiary of 100 colonies. This, at 10 cents, equals a loss of $5 a day for every day that grass and weeds remain during the honey-flow, to say nothing about the shortening of the lives of the bees, their inconvenience, etc. Reader, think it over, and ask yourself if you can afford it. If not, go right out at once and remedy this matter.

"Many ways have been given in the past for keeping grass and weeds down in the apiary, such as keeping sheep and horses there, so they can eat it down; using a lawn-mower, etc., all of which require a constant cutting off of whatever grows; but I prefer something more permanent than this, and where possible, something which will stay year after year. The first, and probably the best of anything, where it can be had, is sand or fine gravel, put on to such a depth that grass and weeds will not grow up through it. This matter is helpt very much if the sward or top of the ground is is taken off before the sand is put on.

"Next to the above, comes coal ashes, which can be readily saved for this purpose where the family or any near neighbor burns coal for fuel. As there is little fertilizing matter in them, they are rarely used for anything except to be dumpt in the road or drawn to some out-of-the-way place and dumpt, so there need be no expense to the bee-keeper except the hauling. The ashes are used in the same way as the sand, and if a quarter in bulk of sand is used with them, the whole will harden down quite solid in time from the storms beating on them.

"Next to these comes a piece of a pine or hemlock board, or any lumber which will last well on the ground. To keep this board from curling up under the sunshine on one side and dampness on the other, it should be cleated on each end as hive-covers are, and if properly done, it will not curl enough to be unsightly.

"Whatever is used, the alighting-board should rest on the material, so that there is vacant space for heavily laden bees, which fall short of the entrance, to drop under, where they will often chill and die on cool days in early spring by the score and hundred. A bee will crawl up an inclined alighting-board to the hive when it is so chilled that it cannot fly, and each bee in early spring is worth a hundred or more after the honey harvest is past.

"If you do not wish to fix your hives thus till fall or early spring, keep the grass down from now on during the summer with a knife, sickle or scythe; anyway so that the bees do not keep on struggling with this grass nuisance any longer."

◆

Smoker Fuel.—Editor Hutchinson says in the Review: "Hard wood split into small pieces will burn all right in a good smoker, but it burns the smoker out much more quickly than is the case with a fire from shavings, which smolders and gives more smoke but less heat than the solid wood."

◆

Patience Should be Exercised.—Editor Abbott, in his Busy Bee for June, has a comment that will be appreciated by almost every supply dealer in the land. It reads thus:

> This is one of the seasons which is apt to try the patience of those who have bees, and send off for supplies. All of the manufacturers and dealers in apicultural goods have gotten behind on their orders, owing to the unusual demand which has sprung up all at once. The result has been that many have had to wait several days longer for their goods than they expected. Most of these, so far as the writer knows, have understood the situation and offered no complaint, but occasionally there is a man who seems to forget the fact that, according to the estimate given out by the United States government, there are about 299,000 bee-keepers who may have an order in ahead of him, and he becomes very impatient, and writes his dealer an imperative and petulant, if not abusive, letter.
>
> I want to say to all such that I know from personal experience and observation that the men who handle bee-supplies are just as anxious to get them off promptly as the people who order are to receive them, but there is a limit to all human endurance, and all men reach a point where they can do no more. Please remember that it is possible that your supply-dealer has reacht this point.
>
> Perhaps you may say, "Why does he not hire more help?" If he does, you may be doomed to a greater disappointment than you would by waiting a few days, for it is not every one who can pack bee-supplies all day for weeks and not make any mistakes. So I say in this connection, just be a little patient, and do not think or say hard things because you cannot get just what you want when you want it—others are in the same fix.

The Weekly Budget.

Mr. E. S. Hubbard, of Monroe Co., Wis., wrote us June 25: "Bees are booming on clover at present."

Mr. Henry E. Bliss, of Herkimer Co., N. Y., writing June 25, said: "Bees are booming now on white clover."

Mr. J. W. Wilcox, of Jodaviess Co., Ill., wrote us June 29:

"Bee-business is booming. I am just closing out a supply of bee-goods that I ordered four years ago. How is that for the supply business?"

Rev. M. Mahin, D. D., of Henry Co., Ind., writing us June 29, said:

"We are having the greatest honey harvest there has been in this locality for many years. Bees do not notice honey exposed in the yard."

Mr. E. France (father of N. E.—the Wisconsin Inspector of apiaries) is in poor health—not able to do any work in the apiary. So reports N. E. France, who, with us all, hopes for speedy improvement of his father's health. So far this season (up to June 26) they harvested a little over 15,000 pounds of very nice honey. Inspector France has issued a leaflet giving his directions for treatment of foul brood, which is given to every Wisconsin bee-keeper in addition to a copy of Dr. Howard's book. These helps, in connection with the American Bee Journal, ought to be sufficient to keep any bee-keeper well informed so as not to run the risk of losing his bees with foul brood.

Editor Abbott, of the Busy Bee, calls upon those who copy from his paper to give due credit therefor. And that's perfectly correct. But where the joke comes in, is when, in the same number calling for proper credit, Mr. Abbott copies a whole article from the Canadian Bee Journal for October, 1896, and *doesn't* give proper credit. Of course, it is none of our affair, but it struck us as being a pretty good joke on our new brother editor.

We have noticed lately some of our agricultural exchanges have been copying articles from the American Bee Journal without the least credit as a "thank you." But if *they* enjoy indulging in such theft, *we* can stand it. But we believe in fair play as publishers, and always aim to give due credit for what we think worthy of reproduction from any of our exchanges.

The Names and Addresses of all your bee-friends, who are not now taking the Bee Journal, are wanted at this office. Send them in, please, when sample copies will be mailed to them. Then you can secure their subscriptions, and earn some of the premiums we have offered. The next few months will be just the time to easily get new subscribers. Try it earnestly, at least.

◆

Back Numbers Since Jan. 1.—We are able to supply complete sets of the Bee Journal since Jan. 1, 1897, to any who may desire, at two cents per copy. There are a number of new readers who perhaps would like to get some of the first numbers of this year, to complete their volume for 1897. We shall be glad to furnish them as long as they last, at two cents each.

◆

☞ See "Bee-Keeper's Guide" offer on page 428.

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Bees and Honey, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages, and 245 illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold-lettered. Price, $1.00.

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Bee-Keeper's Guide—see page 382.

Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Distance Bees Go for Forage, from Choice.

Query 55.—Suppose pasturage is unlimited in all directions, about what distance will bees go for forage? In other words, how far will bees go from choice?—WIS.

H. D. Cutting—I don't know.

A. F. Brown—From 1 to 2 miles.

G. M. Doolittle—From 1 to 6 miles.

J. M. Hambaugh—I really don't know.

Rev. M. Mahin—From 1 to 2 miles, I think.

Mrs. L. Harrison—I should think about 2 miles.

Eugene Secor—Not more than half a mile. (This is theory.)

Dr. C. C. Miller—I don't know. May be half a mile to a mile.

Prof. A. J. Cook—I think they will go very little distance, unless required to do so.

E. France—Very few go over 1 mile; if pasturage is scarce they will go 6 miles.

Dr. J. P. H. Brown—They will go 3 and 4 miles, but 2 miles are as far as they usually go.

W. G. Larrabee—I never saw such a state of affairs, but if I had I don't think I would be able to answer the question.

J. A. Green—At a guess, I should say that not many would go over a mile if they could find an abundance nearer home.

G. W. Demaree—Not further than one mile by natural inclination, but they will follow up bee-pasture for several miles, sometimes.

Chas. Dadant & Son—Not to exceed 1½ miles. They prefer a level trip, and will go farther where the land is unbroken and even.

Jas. A. Stone——Bees will go no farther than they are compelled to. I think they only go to a distance because they find the nearer territory overworkt.

Dr. A. B. Mason—I don't know "how far bees will go from choice," but I know they will go 3 miles, profitably; but where "pasturage is unlimited" their "choice" might be to stay near home.

Emerson T. Abbott—I do not know. They generally go "from choice" let the distance be long or short. If you do not believe it, you just try once to make them go where they do not choose to go.

P. H. Elwood—I don't know, but I do not believe they fly a distance simply for the sake of exercise. With abundant nectar of suitable consistency I believe they would mostly alight within ½ mile from the hive.

R. L. Taylor—It depends upon the lay of the land, and whether the bloom opens successively so as to lead the bees on. Ordinarily they go only far enough to find good pasturage—*i. e.*, flowers not much visited by other bees.

J. E. Pond—This is a somewhat difficult question to answer, but from my own observation and reading, I should judge, under the circumstances stated, that bees will go less than one mile. I

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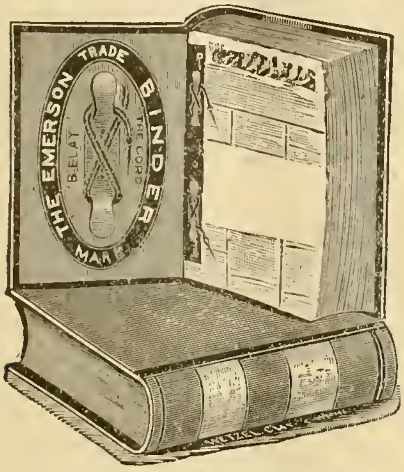
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have known them to go over 3 miles, but in this case there was nothing for them nearer. It is said they will go as far as 6 miles or more, but of this I have no actual knowledge.

C. H. Dibbern—If pasturage was very abundant it is not likely that many bees would go over a mile or so. They would probably increase the distance as forage became scarcer. From choice they would not go over *half* a mile—from necessity 3 miles or more.

General Items.

Alsike a Great Honey-Plant.

Bees here are doing well at present. I had a field of Alsike clover this season, and I think it is the best honey-plant I ever saw. Bees just swarmed on it. Sweet clover has just commenced to bloom, and I am anxious to see the bees go after it. We also have white clover in abundance. M. V. TOOMBS.

Harrison Co., Mo., June 26.

Half a Crop Expected.

The weather has been against us, but we have had abundant rains of late, and now the white clover will last well into July, giving us at least a half crop of white clover honey. I now have 35 colonies from 19 in the spring. The quality of the honey so far is as fine as I ever saw. W. J. CULLINAN.

Adams Co., Ill., June 28.

Prospects Not Bright.

The prospects for a good honey crop are not very bright at present. Up to a month ago they were never better, but then it turned warm and dry—sometimes 86° in the shade the first part of June, but the last week it has been raining more or less, and the bees are bringing in honey now, but it comes very slowly. We are right in the middle of the clover honey harvest now.

HANS CHRISTENSEN.

Skagit Co., Wash., June 25.

Iowa Getting Back Again.

I am happy to say that Iowa is getting back to good old times in the honey and bee business. I do not believe we ever before saw such a crop of white clover as we are having this year. It does seem good to again see our pastures and roadsides covered with this best-of-all plant for good honey. And I tell you our busy bees are making good time when the sun shines. Colonies bred up well during the early spring—in fact, almost all were in first-class condition in early spring, for the fall of 1896 was good for breeding and fall storage. In preparing my own for winter the last of October, I found a number that yet had a quantity of capt brood, which showed that we had a fine lot of young bees to take care of things in the early spring of 1897. I see from my strong colonies they made it count, altho we had a cold, backward, late spring. This is good evidence that good, late fall breeding is a grand thing for the coming year. I think all should see to it that we have plenty of breeding in our colonies during the last half of August and the most of

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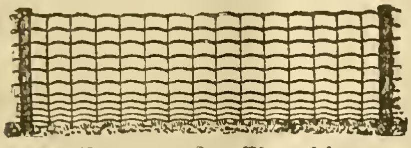

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There is a simple little machine on the market, which can be had for $1 , with farm right to use it. This tool was named "flail," but if it is called "hurricane," the work will be easier. The farmer's time is nothing, and after threshing is finished, he can buy a little "pocket whirligig" and build fence. Of course the progressive farmer will not try to compete with steam, either in threshing or fence building. He uses the **PAGE.**

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22Atf CHAS. MONDENG, Mgr.

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READERS Of this Journal who write to any of our advertisers, either in ordering, or asking about the Goods offered, will please state that they saw the Advertisement in this paper.

September, and if October is included, so much the better.

I have seen the good and bad effects of breeding, as above stated, at different times. Sometimes for want of honey in the fields, and sometimes because of too much, and the brood-chamber was crowded with honey to the exclusion of brood, honey being stored in the brood-comb as hatcht out. The extractor is then a good thing. J. W. SANDERS.

Marshall Co., Iowa, July 1.

◆

Interested in Bee-Keeping.

I am keeping bees in a small way, having now 20 colonies from a start of 2 a few years ago; and as I am in the fruit business I expect the bees to be useful to me. I used to be afraid of them, and get into trouble when I went near them, but I am learning better, and can get along with them better now. I have no ambition to become a bee-man, but I may just as well start right on account of my two sons, who may finally take up my work. One graduated from the University of Illinois, and may become interested in them. The other son also was there two winters, but yet they take an interest in farm work and fruit. L. N. BEAL.

Jefferson Co., Ill., June 25.

◆

Bees Doing Well.

My bees are doing well. I had 8 strong colonies in the spring, and now I have 22—10 swarms in May and 4 in June. I had a swarm May 11 at 10:30 a.m., which I put into a 10-frame hive with a super of 24 sections on top. May 17 I took the super off, full of the nicest white clover honey that any one ever saw; and June 4 I had one of the largest swarms I ever saw from that same hive. This beat anything that has happened to me since I first commenced, some 14 years ago. GEO. C. ELLIS.

Warwick Co., Va., June 30.

◆

Working Nicely in Supers.

It has been very cold and rainy here, but it has turned off warm and white clover is just coming in. The blossoms are larger than usual. Raspberry and blackberry are just coming also, and bees are working nicely in the supers and swarming slowly; but when a swarm does come out it is a whopper—as large as the outside of a 10-frame hive; but they get in some way. I had one come out and hang in a cluster all night, and we had a thunder shower during the night, but they staid there waiting for me in the morning. It happened to be my birthday, so I had a birthday present—so my wife calls it.

C. G. ASCHA.

Berkshire Co., Mass., June 23.

◆

Utah's Pioneer Jubilee—July 20-25.

This is Utah's jubilee year, and the dream of the pioneer has been fully realized. The great American Desert, where 50 years ago the red man roamed with the buffalo, the bear, deer, and the wolf, now teems with civilization, with beautiful towns and cities—where 50 years ago scarcely anything grew but wild sage, salt grass, and grease wood. But the desert has been made to blossom as the rose, and instead of the cricket and the grasshopper, which sometimes

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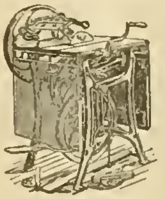

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GUS DITTMER,
AUGUSTA, WIS.

devoured nearly everything, there is an abundance of the good things of the earth. This was one of the few spots where there was no honey-bees until they were imported 1,000 miles overland by those hardy pioneers.

Utah will grandly celebrate her pioneer year. It is said that President McKinley and many others will be here. We send you greeting—a pressing invitation to come and see us, and we wish to extend this invitation to bee-keepers from any part of the world. We will try to make it pleasant and agreeable for all that may favor us with their presence. There will be an extra session of the bee-keepers on July 23, in Salt Lake City. While in some parts there was considerable winter loss, as a rule the yield of honey is excellent at present, and the bees are in good condition.

E. S. LOVESY.
J. B. FAGG.
Salt Lake Co., Utah, June 26.

Too Much Rain in June.

Bees are doing well at present, but it has been so rainy through most of June that they have done very little until now.

F. L. MURRAY.
Lafayette Co., Wis., June 30.

Honey Finest Ever Seen.

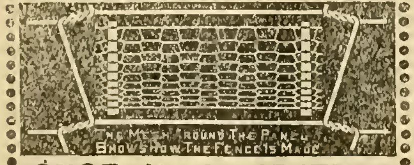
Judging from present indications this will be a splendid honey season in this section. I have taken off quite a lot of honey, and it is all of the finest quality ever seen.

GEO. BISCHOFF.
Des Moines Co., Iowa, June 30.

Backward Season.

My hives are brimful of bees, and in splendid condition. But on account of so much cold, rainy weather this spring, they have not been able to store any surplus honey yet. If we don't have some dry weather soon, I fear that our "name is Dennis" for this season.

C S. FRENCH.
Todd Co., Minn., June 29.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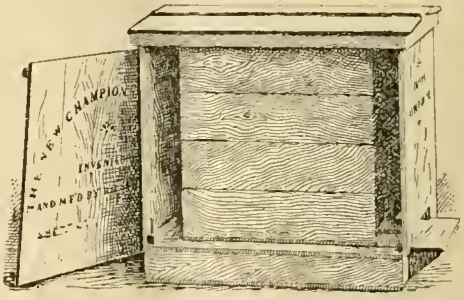

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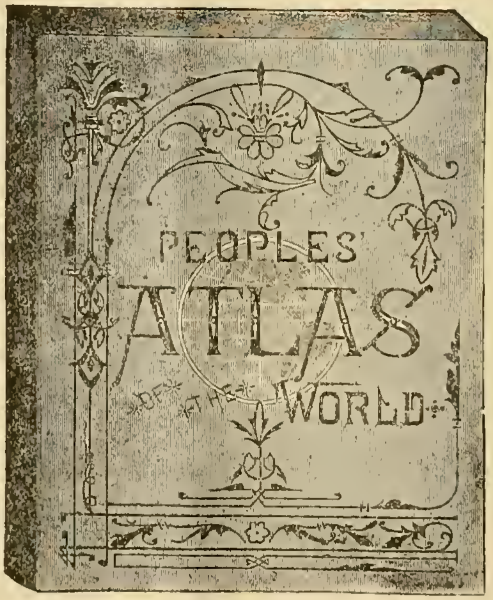
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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., June 14.—Fancy white, 12@13c.; No. 1 white, 10@11c; fancy amber, 9@10c.; No. 1 amber, 7@8c.; fancy dark, 8c.; No. 1 dark, 5@7. Extracted, white, 5@7c.; amber, 4@5c; dark, 3½@4c. Beeswax, 26@27. Not any new comb honey in market. Extracted very slow of sale.

Philadelphia, Pa., June 14.—Fancy white, 13@14c.; No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 8@9c.; No. 1 dark, 7@8c. Extracted, white, 5@6c.; amber 4@5c.; dark, 4c. Beeswax, 25c. New honey has commenced to arrive. Very little call at present. To-day is very dull. Prospects are for very low prices. Biggest honey crop in 10 years.

Milwaukee, Wis., June 14.—Fancy white, 13@14c.; No. 1 white, 11@12c.; fancy amber, 10@11c.; No. 1 amber, 8@10c.; fancy dark, 8@9c. Extracted, white, 5@6c.; amber, 4@5c. Beeswax, 27@28c.

The stock of honey is working down to a small supply; especially for anything fancy. It is encouraging to apiarists to find that the more carefully and nicely honey is prepared, and the better the quality sent to this market, the more readily it will sell, and good returns follow. And new choice quality comb will sell, while the common is very hard to move at any price. We think the old stock will all be disposed of before any new crop is ready for market.

Buffalo, N. Y., June 14.—Fancy white, 10@11c.; No. 1 white, 8@9c.; fancy amber, 7@8c.; No. 1 amber, 6@7c. fancy dark, 6@7c.; No. 1 dark, 5@6c. Extracted, white, 5@5½c.; amber, 4½@5c. Beeswax, 20@25c.

No demand now, and we can't move any kind without pushing and cutting, but we can sell at some prices.

Kansas City, Mo., June 14.—No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 9@10c.; No. 1 dark, 8@9c. Extracted, white, 5@5½c.; amber, 4@4½c.; dark, 4c. Beeswax, 25@30c.

Very little old comb honey in market. No new in yet. There is considerable extracted on hand.

Boston, Mass., June 14.—Fancy white, 13c.; No. 1 white, 11@12c. Extracted, white, 7c.; amber, 5@6c.

The demand for honey is light, but that is to be expected at this time of the year. Supply is also light.

Cleveland, Ohio, June 14.—Fancy white, 12½-13c.; No. 1 white, 11c.; fancy amber, 8-9c.; fancy dark, 7c.

Honey is moving very slow. We believe, however, as soon as the new crop comes in it will move much better.

Detroit, Mich., June 14.—Fancy white, 10@12c.; No. 1 white, 10@11c; fancy amber, 8@9c.; No. 1 amber, 7@8c. Extracted, white, 5@6c.; amber, 4@5c. Beeswax, 25-26c.

Cincinnati, Ohio, June 22.—Comb, 8-13c. Extracted, 3½-6c. Beeswax—demand fair at 22-25c for good to choice yellow.

Demand for comb honey is slow. Considerable of the new crop of extracted has been arriving the last two or three weeks and finds a pretty ready sale.

New York, N. Y., June 14.—Comb honey is all cleaned up now, and there is no more demand for any; could sell some nice white comb at from 10@11c., but would not advise shipping of any more buckwheat. New crop extracted is arriving quite freely from the South, and finds fairly good sale at from 50@52c. per gallon for average common grade, and 55@60c. per gallon for better grades. Expect to have new crop California here within the next two weeks or sooner.

Beeswax steady at 26@27c.

Minneapolis, Minn., June 14.—Fancy white, 12@14c.; No. 1 white, 11@12c.; fancy amber, 10@11c; No. 1 amber, 9@10c.; fancy dark, 8@9c.; No. 1 dark, 7@8c. Extracted, white, 6@7c.; amber, 5@6c.; dark, 4@5c. Beeswax, 24@27c.

Demand for extracted honey is nominal, but at fair prices. Comb very slow on account of warm weather.

San Francisco, Calif., June 9.—White comb, 9-10c.; amber, 5-7c. Extracted, white, 4¾-5¼c.; light amber, 4-4½c.; amber, 3½c.; dark tule, 2¾c. Beeswax fair to choice, 25-27c.

New-crop honey has been coming forward quite freely, mostly extracted, with demand slow at full current figures, and mainly for local use. Some inquiry is being made on foreign account, but shippers' ideas of values, so far as exprest this season, are at a low range, and under any prices which have yet been acceptable to producers. This year's product, owing to its generally fine quality, should prove very desirable to European dealers, and it is hoped they will see their way clear to bid figures which will allow at least a fair remuneration to apiarists.

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Most of whom Quote in this Journal.

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Kansas City, Mo.

C. C. Clemons & Co., 423 Walnut St

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Batterson & Co., 167 & 169 Scott St.

Hamilton, Ills.

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Wm. A. Selser, 10 Vine St.

Cleveland, Ohio.

A. B. Williams & Co., 80 & 82 Broadway.

St. Louis, Mo.

Westcott Com. Co., 213 Market St

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M. H. Hunt, Bell Branch, Wayne Co., Mich.

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Contributed Articles

Large Honey-Yields—Swarming, Etc.

BY PROF. A. J. COOK.

The following has been forwarded to me by the editor, for reply:

MR. EDITOR:—I am very much interested in Prof. Cook's report of J. F. McIntyre's immense crops, as given on page 291, and write to ask if I am correct in understanding that Mr. McIntyre keeps his 600 colonies in a single apiary. If so, his yields from a single apiary are enormous—the average being well toward 60,000 pounds, and at least 180,000 pounds, or 90 tons in one of his best years. Has a single apiary ever beaten that record?

Another question: Prof. Cook says when a swarm issues the brood is taken away......"and thus the colony is in good condition to go into the surplus chamber as soon as the honey season opens." Is it the common thing in California for bees to swarm *before* the honey season opens? T. BUSKIRK.

In response to the questions by Mr. T. Buskirk, I will say that Mr. McIntyre does keep his 600 colonies of bees in a single apiary. I do not know that any apiarists in California have done better than Mr. McIntyre, tho a good many have done as well. The fact that the flowers here yield bountifully of honey, and are in blossom for so long a period, and usually have no climatic condition to interfere with a copious nectar-supply, in case the preceding winter was a wet one, often makes the yield of honey enormous. The only discount on California as a honey State is the fact that once in about three years the season is a failure, owing to excessive drouth.

Mr. Buskirk also asks if it is a common thing in California for bees to swarm before the honey season opens. I would answer this, yes and no. The real honey season that is counted on for a harvest does not usually open until the dawn of the bloom of the white sage, and usually the bees are done swarming at this period if managed rightly. The season, however, commences much earlier. The eucalyptus trees are in blossom all winter, and the lemon and orange are in bloom in February. Thus we have a honey season the winter through, yet the bees are breeding up at this time, and it is not often that very much surplus honey is secured, tho several apiarists during the past winter secured not a little honey from the orange-bloom, and it was beautiful honey. I had some of this honey during the past spring, and it had just a reminder in flavor of the fragrance of the orange-blossom, and I hardly need say more to represent its incomparable excellence. I noticed the same thing of fruit-honey in Michigan. It often would remind me of the fragrance of the apple-orchard.

The following is another letter sent me by the editor:

> Mr. Editor:—I send you a green bug that was taken out of the interior of a colony of bees this afternoon with a live honey-bee in its mouth, and it took the head off the bee before it would release it. I send the same bee with the bug for your inspection. Please report through the Bee Journal.
>
> Livingston Co., Ill. John S. Sleeth.

I was much interested in the letter of Mr. Sleeth. The large beetle which he encloses is a beetle very common in Michigan, Illinois, and all the States east to the Atlantic. It is one of the great family of ground beetles—Carabidae—all of which are known for their predaceous habits, and do an immense amount of good in destroying cut-worms, caterpillars, and other moth-larvæ that live in the ground. Most of the beetles of this family are black. All have long legs, and thus can run very fast, and sharp jaws which fit them admirably for the good work which they perform. The grubs or larvæ are also usually black, run rapidly, and also have sharp, strong jaws. The larvæ, like the beetles, are also very valuable in destroying our insect pests. The beetle sent is quite an exception in coloration from most of the family. It is a brilliant green, with a thorax of metallic blue, bordered on the hind margin with a band of coppery bronze. The head is black, while the entire under side is greenish bronze, tho the legs are metallic blue. The insect is one of the most handsome of our beetles.

I have never heard before of this insect, or any others of its family, attacking bees. Mr. Sleeth says that he found the beetle in the hive with a live honey-bee in its mouth, which it beheaded before release could be given. I am not surprised to learn of this case, for any such insect is likely, occasionally, to vary its usual diet with a bee or two. We need not, however, have any anxiety in this case, for I am sure that this beetle will never do any serious harm to the bee-keeper, while the amount of good that it does to the farmer and gardener passes description. The name of the beetle is Calosoma scrutator.

We have had a serious caterpillar pest in the olive orchards of Southern California the past spring, which did no little harm. A large, black ground-beetle of the same family and genus as the one sent by Mr. Sleeth did valiant service in helping us to rid the orchards of this new enemy. This beetle was observed to run up the trees, and would dispatch a number of the large caterpillars at one meal-time.

SOME CALIFORNIA HONEY-PLANTS.

The California white sage, or Audibertia polysthacia, has now been in bloom for four or five weeks, and still the buds are yet as numerous as the more mature fruit. I think we can expect the blossoms to continue for at least a month yet. The California buckwheat, a shrub which is very abundant in Southern California, and which has a cluster of white flowers tinged with pink, is now in full bloom. The name of this plant is Eriogonum fasiculatum. This flower blooms even longer than the white sage. It commences to bloom by the middle of May, when the white sage has been in bloom for about four weeks, and continues to bloom until winter. I have often seen it in blossom the very last days of December.

One of the most common honey-plants of Southern California is a beautiful shrub, or I might say beautiful shrubs, for there are several species. They belong to the family Rhamnaceae, and belong to two genera Rhamnus and Ceonothus. One of the early flowers of the second genus grows abundantly in the canyons, and blossoms very early, being in full bloom the last of March. It is called the "wild lilac," and not without reason, for the blossom is much like the lilac, not only in color, but in form as well. The species of Rhamnus blossom later and are in bloom nearly the summer through. They are beautiful shrubs with bright green, glistening leaves which look almost as though they might have been varnisht. The flowers are greenish, and quite inconspicuous, but the shrub is exquisitely beautiful. I have often wondered that the shrub is not transplanted generally into our yards and pleasure grounds, as I know hardly a plant that would more fitly grace such a position. There is another advantage that would be gained in setting this plant, that it seems to endure the greatest drouth, as we find it long in bloom during the summers following our driest winters.

These plants are also honey-plants, as it is very common to see the bees swarming on the flowers. I am not sure that they get very much honey from this source, but the flowers certainly would have the advantage of stimulating breeding, and may be, for aught I know, excellent for honey.

IRRIGATING HONEY-PLANTS.

It is well known to all bee-keepers of Southern California that seasons following a severe drouth are not productive of nectar, so that the honey crop is almost sure to be a failure at such time. During the past winter the rainfall ceast very suddenly, so that, what is quite usual, we had almost no rain at all in the month of April. Our fruit-growers are complaining seriously that their prunes and navel oranges are dropping largely from the trees. In certain cases the trees are bearing as heavily as ever, but in all such cases the trees were thoroughly irrigated in the month of April. In one place near Claremont several orchards were—we may almost say by accident—thoroughly irrigated, so that the earth was well wet down in the month of April. These orchards are all loaded with fruit. Thus it is thought by several of our best fruitmen that the April drouth, just as the bloom was falling, was the cause of the fruit dropping so badly.

Does not the failure in the honey crop in dry seasons argue in the same direction? I am inclined to believe that with further observation our fruit-growers will learn that irrigation in dry winters may pay as well as the wetting down of the earth later in the season. It is possible that the time may come when the bee-keeper will irrigate honey-plants, and thus secure a crop even in seasons of drouth. Mr. Harbison stated at the San Diego Farmers' Institute that he had set out a large plantation of the black or ball sage. He stated that it was a very easy matter to do this, and he found the profits were exceedingly large. He believed that such setting of honey-plants would be largely resorted to in the future, and would make California a honey State of highest reputation.

It seems to me that Mr. Harbison's hint, together with the suggestion above, is worthy of thought and consideration. Such a plantation would not need to be watered except in the winter when water has no value. It is probable that a plantation of 10 or 20 acres of sage, well watered every winter, would give sufficient honey for quite an apiary. This whole idea may seem chimerical to many; but such suggestions are not to be too lightly treated. There may be more in them than any of us think.

THE WORK OF THE OLD UNION.

A friend writes me complainingly, as tho in my recent articles regarding the work of the Old Bee-Keepers' Union I was antagonizing some one. I wish to state that I have no such intention or thought. It seems to me that none of us have occasion to question or suspect others' motives who differ with us in matters of this kind. As this matter seems to me one of very great importance, I wish to trespass upon the bee-keepers once more.

From what this friend writes me, I do not suppose it is possible for the Old Union to act without a sanction by direct vote of the members. It seems that at the last vote it was directed that the Old Union should do battle in no other lines other than those previously followed. While I do not believe at all that the members meant to vote this way—for I do not believe that they understood they were voting except against amalgamation—yet with the vote in view I think it is probable that the Manager has no right to prosecute in other directions. In this case I believe that we should at once vote to give him that right, and not only that, but direct him to proceed at once to fight adulteration.

As I have already stated, it is not wise or best in my opinion to keep two organizations afloat. The amount of business on hand will justify no such course. It is just as patent, I think, that the Old Union will not live if it does not broaden its field of work. It seems to me with its old-time prestige it can do better work than can any new organization, if it is willing to put its shoulder to the wheel with all of its old-time energy. For this reason, I, as one of the officers of the Old Union, am led to urge with all the power I am possest of, that the Old Union proceed at once to fight this horrible enemy of the bee-keepers—the adulteration of our honey.

As I have said before, we have a splendid place right here in California to commence the fight. The old Manager is on the ground. The public sentiment is ready for the fight. I believe it is a stupendous blunder that any impediment stands in the way of immediate action.

Los Angeles Co., Calif., June 6.

⁂

Starved Brood—How to Prevent It.

BY WM. M'EVOY.

In many localities the bees get but very little honey after fruit-bloom is over until the clover begins to yield, and when the weather has been rather unfavorable at that time the bees in many colonies *will use up all the unsealed honey at such times* in feeding the larvæ, and when that is gone the bees in some colonies will not uncap the old sealed honey fast enough to keep pace with the amount of larvæ on hand that requires feeding just then. Soon after that, dead brood in all stages will be found, which died for the want of being fed. Uncapping some of the sealed stores, *in the evenings*, or feeding at such times so as to furnish the bees with *plenty* of *unsealed* honey in the brood-nest, will put things so in order that no dead brood will be seen in such colonies after that.

There is a great difference in the bees from some queens. Some are good feeders of larvæ at all times, while others are *very poor*, except in times of honey-flows. In the honey season, do away with all queens whose bees are not good feeders of larvæ, and put in young ones from colonies that are, or send to some good queen-rearer for some. Where the combs have much dead brood of this kind, place them above the queen-excluders until the most of the brood is hatcht; by doing that the bees will clean this kind of dead brood out before they store honey in the cells.

But in all cases where the combs are poor and very old, make wax of these as soon as the brood is hatcht out of them.

The combs of decayed brood, which I recently received in paper boxes that came from Dakota and Minnesota, had no foul brood in them, altho the resemblance was very strong.

Ontario, Canada, June 30.

⁂

Some Bee-Keeping Errors Corrected.

BY C. B. BANKSTON.

It is indeed easy for man to sit in his office and imagine things about bees, and write his imagination for the books and papers. But actual experience is what the novice needs, as much or more than he does book-learning. In every pursuit there is a class who has a special slight with the pen. These fellows do a great deal of good and a great deal of harm. While they do not teach us much about the real truth of the secrets hid beneath the hive-cover, we learn to theorize from reading their long-winded articles. I regret to say that there is a great deal taught about bees in the books and periodicals which is not akin to the truth. Many of the bee-keepers who know the most write the least.

When a lie becomes popular it is all the harder for the truth to suppress it. I will mention a few things which have been going the rounds, and which I very much desire to have set right. I will not mention any writer's name, but simply refer to the thing said.

LAYING QUEENS FIGHTING.

Whoever saw laying queens fight? I never did. This coming from one of our best writers was easily believed by the inexperienced. I had not kept bees six months before I learned that laying queens would fight to a finish as soon as the opportunity is presented. One man had a fine Italian queen killed just from the conclusion he had drawn from reading this statement.

MEETING OF THE QUEEN AND DRONE.

The queen and drone meet in the air; in falling to the ground the male organ is twisted in two, and the drone and queen are thus separated. This is imagination. Here is the truth: They meet in the air and fall to the ground; the queen gnaws the organ in two, and returns to the hive.

REARING QUEENS FROM TWO TO THREE DAYS' LARVÆ.

Good queens can be reared from two to three days' larvæ. This is imagination. Experience says that good queens can be reared from two to ten hour old larvæ.

QUEENLESSNESS, NOT WEB-WORMS.

"The web-worms destroyed several colonies for me during the season." Imagination. Experience: I lost several colonies from queenlessness and starvation.

THREE-BANDED WORKER-BEES.

A 5-banded queen mated to a black drone will produce 3-banded workers. Straight imagination. Truth: The workers will be at least one-third black.

QUEENS PASSING THROUGH BEE-ZINC.

A virgin queen can go through a space 5/32 of an inch. As soon as laying, she cannot pass. Imagination. Truth: A laying queen can pass through any space that she could when a virgin. Impregnation does not enlarge any part of her except the abdomen. And space which will admit the thorax is sufficiently large for the whole queen to pass through.

PURE DRONES FROM MISMATED QUEEN.

A mismated queen will produce pure drones, as to the mother's stock. Imagination. Truth: Italian queens mated to black drones will produce some black drones, which is sufficient proof that they too get some of the black blood of the father.

HARD TO CHANGE OLD IDEAS.

If men would write their experience instead of what they imagine, and the knowledge they glean from the reading of books, the errors of our fathers would soon be corrected. When ideas are once stampt on a man's brains it is a very difficult matter to get him to even consider anything contradictory to them. To illustrate: When I was a boy my oldest brother and I went hunting. He carried the gun, and about a mile from home we saw two deer. Brother shot and killed them both. I was very anxious to kill a deer, but never succeeded. I began to persuade brother to let us tell the folks at home that I killed one and he killed the other. Agreed. So the lie was manufactured and put into operation. I received more praise than he did, because I was the least. From year to year we would tell this; the idea was finally stampt on my brain, that I did kill the deer, and was ready to kick like a bay steer when brother said that I did not.

Should one of those gentlemen who made the errors mentioned above, chance to pick this article up, and begin to read, he would drop it like a hot rock, because it conflicts with the ideas he has advanced or contracted from reading books which were written by men when modern bee-keeping was in its infancy, and before many of the secrets of the bee-hive were revealed to the human mind. Oh, if we could only be content to write what we knew to be actual facts, instead of poisoning the minds of the seekers after knowledge with our imaginations, we would be a blessing instead of a curse to humanity. There is no pursuit about which people are so ignorant as that of bee-keeping, and most people can recollect things told them about anything else better than things told them about bees.

There is an old gentleman with whom I am well acquainted, who began studying bee-keeping. He procured some of the best books on the subject. I heard him tell a lot of clabber-headed fellows one day that he learned from one of the books that queens were often reared from larvæ three days old. I told the old fellow the book he got that out of was just guessing at it. He insisted that the man who wrote the book knew what he was talking about. I begged the old man to let me prove to him that a queen could not be reared from a larva three days old. "Oh," said he, "it could be done." I offered $10 for every queen he could rear from a larva three days old. He began to experiment a little, and finally he agreed that it could not be done.

Some bee-writers say that good queens cannot be reared from larvæ three days old. I say, and will prove to any sensible man, that no kind of a queen can be reared from a larva so old. And I believe that G. M. Doolittle and Henry Alley will bear me out in it.

I love the bee-books and bee-papers; I take and read them all. I love the good men who write them, but the unvarnisht truth is dearer to me than them all.

Milam Co., Tex.

Building Up a Reputation on Honey.

BY G. M. DOOLITTLE.

QUESTION.—Is it any advantage to put your name and address on cases of honey which are to be shipt on commission to commission men?

ANSWER.—Each year, from 1871 to 1877, I sold my honey to a dealer in Syracuse, N. Y., delivering it there by wagon, so that it always arrived in first-class condition. As the merchant, always took all the honey I had, both extracted and comb, together with all the dark honey, I considered it a good thing for me, and would still think so if I could thus sell my honey now; but death removed him in the early part of 1878; and altho I have several times tried to have other parties in this city take his place, yet not one was willing to do so, as regards buying and selling honey.

However, there was one thing I did not quite like, which was that he insisted on my bringing the honey to him in cases having nothing on them except the gross weight, the tare, or the weight of the crate, and the net weight of the honey. When I asked him the reason for this he showed me stencil-plates bearing his own name and address, and said: "I put my name and address on every case of *really fine* honey which I buy, so as to build up a trade in honey, thus securing a name second to none; for with all inferior honey I leave this stencil-mark off, so that none but the very best bears my name, and thus I am gaining a reputation year by year which is growing constantly to my benefit. If I allowed you to put your name on the cases it would not help me a bit; and as long as you sell to me each year it could be of no benefit to you."

After a year or two I saw that his line of reasoning was correct; for every year gave him a larger range of customers, until, at the time of his death, he handled honey by tons to where he handled it by the ten pounds when he began. After his death I began shipping honey on commission, and wrote my commission merchants, asking them if they would allow me to put my name and address on each case. To this they objected; but a few said they had no objection to my putting my name on the sections inside the case if I wisht to do so. I accordingly procured a rubber stamp, as well as a dating-aparatus which would remain good for ten years. I could now, in a moment, put my name and address on anything I wisht, from a postal card up to a bee-hive, and give the date of so putting on, if desired.

Outside of the first object, as originally intended, I have found this stamp of great benefit to me in many ways, and I would advise everybody who reads this to procure such a stamp and see how much in time, money, and temper it will save them.

Taking the hint given me by the honey-merchant, I put my name on only all really nice honey, and let all "off-grades" go without it. And right here I wish to throw in a suggestion. We have heard much in the past from commission-men and others about some sending them honey, putting all sorts of inferior honey into the same case with fancy honey, putting the fancy on the outside, and the inferior in the middle of the case where it would not be seen till the case should be opened. I never blamed commission men for being out of patience with those who would work against the interests of every one concerned, enough to do this thing; and the suggestion I would make is this: If you will procure a rubber stamp, and use it as did the honey-merchant spoken of above, no one will ever have a chance to say aught but words of praise for the even appearance of all honey which you put in any case.

After the sections were all in the shipping-case, and before the cover was put on, it took only a moment or two of time to stamp all the sections in that case, thus letting the consumer know by whom such fine honey was produced, while the commission merchant received all the credit with the retailer, unless, perchance, such retailer desired to deal direct with the producer. And thus it came about that I got many letters from different parts of the country reading something like this:

"I purchast of Mr. So-and-So a splendid article of honey bearing your address. As it gives the best of satisfaction, for how much could you send me——cases of such honey?"

And so it has often come about that, after my honey was all disposed of, I would have many calls for honey which I could not supply, but which gave me a "leverage" for the next year. So it will be seen that the plan of a shrewd merchant has not been lost, even if he did keep me where he wisht while he was living.

Why I said in the forepart of this article that I should be glad to sell as I formerly did was, that there is an advantage in selling the whole crop to one person, for cash on delivery, not gotten by selling the crop out in small lots, or by shipping it on commission. All will think of some of these advantages, without my enumerating them. However, it so happens that the most of the large producers can not sell to one party each year, and for this reason I give the above plan, as I believe it to be a good one, and just the one to work upon when we can not sell to one party each year, and for this reason I give the above plan, as I believe it to be a good one, and just the one to work upon when we can not sell our whole crop to one person, or all of it in our own home market. And by this plan many are induced to eat honey who do not generally buy, by the advertising done by those who are pleased by a really nice article of honey. It takes all of these little kinks as going toward a whole to make successful bee-culture.—Gleanings.

Several Bee-Notes and Suggestions.

BY MRS. L. C. AXTELL.

BEES QUIET IN SPRING.—It seems to me the more quiet that bees can be kept in the spring the better it is for them.

FEEDING FOR POLLEN.—We used to feed our bees bushels of ground oats, rye and corn-meal; also flour, but have come to the conclusion that it is an injury to them, as they get plenty of natural pollen from the maple and willow trees in all weather fit for bees to fly.

RETARDS THE "SET."—Moving chickens even from one pen or house to another in the spring retards their wanting to sit.

WINTERING BLACKS VS. ITALIANS.—The old black bees in their box-hives winter even better than our fine pure Italians on the old, let-alone principle. But the Italians, if cared for in movable-frame hives, and properly protected, go far ahead of the blacks.

Proper Care for Bees.—Any race of bees properly cared for will do much better for their owner than if left alone to shift for themselves; but unless a person understands bees, he would better not handle them much. Even on the let-alone principle bees pay their owners full for all money invested in them.

Putting on Supers.—If colonies are strong, supers may be put on some weeks before the main honey harvest. Last year we had about 10 hives in one corner of the apiary that I overlookt, and supposed I had put supers on until one threw off a swarm. Then I hastened and put supers on all, but every one swarmed, and had the swarming-fever the worst kind. They gave but little surplus, compared with those I put on supers a month or two weeks earlier.

Shading and Ventilating Hives.—Bees out in the sun, with no tree to shade them, should be protected by a shade-board and a large entrance in front. If in a hive that can be opened at a side, a larger entrance may be given by opening at the side. But when swarming, and the queen is clipt, it bothers much to have the bees pouring out at both the front and side of the hive, and the queen is oftener lost.

Selling Honey Near Home.—It pays to sell more of our honey near home, direct to consumers. It should be graded, too. The very whitest and prettiest should be sold for a cent or more than the medium, and the rough and dark should be cheaper. It is not fair to hold it all at one price. We should let a poor person have our nice honey at the same price as the rich and fashionable, and not try to put the dark, rough honey on any one who did not choose it.

Warren Co., Ill.

Paddy O'Brien's Picnic.

BY EUGENE SECOR.

"Hello! Pat. What's the matter with you? Been to a 'wake?' Your physiognomy looks as if you had had a tussle with Fitzsimmons."

A *wake*, did ye say? Nary a bit of it, more's the pity. It were jist a *picnic*. At iny rate that's phat Daykin Smith called it. Wan foin mornin ferninst Easter, the Daykin came over to my shanty an says to me, "Pat, wat are ye after doin nowadays?" says he.

Says I to the Daykin, "Oim waitin to wurrick for the Prisidint, Mike Kinley. Claveland haint gin me a lick o'wurrick for the space of two year, an' the sate o'me pants shpake the thruth whin I tell ye I'm shtandin on me last legs," says I.

An' the Daykin, all a smilin, says he, "Phat will ye ax to gin *me* a lift at a small, *aisy* job that's no wurrick at all?" Says the Daykin, "I've a little picnic phat I cant play at mesilf alone, sin' I'm gettin a little old and wake in the back, an' I nade *ye* fur a shart wile to help me out a dialemma," says he. "An' if ye loikes the job I'll be after kapin ye all summer, maybe. An' I'll give ye a dollar a day an' sumthin to swaten yer tay if we two agray," says he.

"All right," says I. "It's not often that I meets a foin Christian gintleman loike yoursilf, that don't want a poor laborin man to water the airth wi' the swet from his honest eyebrows," says I. "I loike your honest countenance and yer swate smile," says I.

"Bridget O'Brien and her siven lone orphan children shall no longer ate the bread of 'starvation, whin their hard wurrickin father can foind sich a nice, clane, *aisy* job right at his own door and no trampin," says I.

An' the nixt mornin, bright and airly," I wint over to the Daykin's hunting for the wurrick that was no wurrick at all—that would put bread an potatys and patches on the backs of me siven darlint orphans and their poor lone mither.

An' the Daykin was there afore me. An' he says to me, "Pat, do ye moind helpin to fetch the blissed baze out of the cellar. They be achin' to be out in the sunshine," says he. "They're crazy for a fly," says the Daykin.

"Ah," says I, "these are the little bastes that wurrick all night and all day and never quit on Sundays. They niver go on a sthrike whin the boss kapes all their wages. They suck honey out of the mud puddles and fix it up so nice an swate we don't know where they got it. But, begorra, I didn't know these craturs ate flies before," says I.

And there set a hundred coops of baze all a shtandin by thimselves on the top of aich ither, slapin quiet and peacable as me own little bairns in their trundle-bed on the floor.

An the Daykin smiled and says, "Pat, do ye think ye can carry thim out gintle loike, an' not wake thim up sudden?" "Ah," says I, "ye can thrust me for that," says I. "What did I be after doin whin Bridget be a scrapin togither a bit to ate at the washtub, but carry me two darlin twins in me arms all the blissed day, singin swate Irish songs till yer heart would break wi' the music of it.

"An hav'n't I carried many a load of brick an' mortar, so slow an' gintle-like up thra pairs of stairs to the fellows up there phat did the wurrick? Indade, I am jist the boy that can whisk two of thim little boxes under me arm an' smoke me pipe in the bargain," says I.

An the Daykin pickt up wan o'thim and walkt off wid it as spry like as a young married man. An' d'ye think I was going to be bate by the loikes o'him. Not a bit of it. I could carry a dizen coops loike thim, wid all the swate animals thrown in.

So I raitcht fer wan o'thim and clapt it under me arm in a jiffy, an' out of the cellar I started behoind the Daykin. But, bad luck to the day I was born in; the door post hit me box. The top of it fell off, an' the bottom fell out. An' the little varmints must a took me for a honeysuckle, for they came out by rigiments, an' ivery wan of thim tried to raich me before the ithers. "Houly Moses!" says I, "the Daykin niver towled me that baze got honey wid ther tails. By the Powers, I'd rather the little varmints would warm ther feet and bore for honey on the Daykin's bald head, than be so familiar wid strangers. They must have thought me nose wer a red poppy, an' me whiskers a bed of dandelions. An' the song they were after singin would never put me babies to slape in the wurruld."

An' I whiskt mesilf out o'doors wid a quickstep for the garden, an' rolled in the strawberry patch, shoutin, "Bloody Murther!" "Bridget!" "Father O'Cleary!" an' prayin to all the saints in the calendar to be delivered from the hot divils a crawling up me slaves and down me shirt an' thro the holes in me Claveland pants, an' committin fornication upon me at ivery jump.

That's phats the matter wid Paddy O'Brien's physiognomy. I've been to a *picnic*, jist.

Judging Apiarian Exhibits at Fairs.

BY W. Z. HUTCHINSON.

One of the hardest things to bear in exhibiting at fairs is to see premiums awarded to inferior exhibits when there are other exhibits really deserving of said premiums. As a rule, I think that premiums are fairly and justly awarded, according to the merits of the exhibits; that is, most of the judges are honest and capable, and when an exhibitor is disappointed it is usually the result of an honest difference of opinion between himself and the judge. Of course there will be an occasional case of dishonesty. There was one such case in the apiarian department of one of the fairs that I attended last fall. All the exhibitors knew that there was something wrong, but whether it was ignorance, or prejudice, or dishonesty, no one, except the one who did the bribing, knew. Since then it has leakt out that the judge was "bought," with two cases of honey, to favor a certain exhibitor.

I believe that, as a rule, there is more satisfactory judging done in the more important departments of the fair than in the minor ones like bee-keeping. More pains is taken in the leading lines to secure the services of experts, and a man who is an expert is usually enough of a *man* to care something for his honor. In bee-keeping it sometimes happens that a judge is pickt up on the grounds—some one who has kept a few bees at some time in his life, or some dealer who has handled honey or something of this sort. However honest such men may be, they never give satisfaction. What is needed is an expert, one who has made a specialty of bee-keeping, and if he has had experience with fairs and exhibits of bees and honey so much the better. To a certain extent the bee-keepers are themselves to blame for this state of affairs. If, at their State convention, they would pass a petition asking the fair management to appoint a certain man as judge of their exhibits at the State fair, he would be appointed. The managers are anxious that a competent judge be chosen, but they don't know who *is* competent, and no one with authority informs them, and it is left to the superintendent of the department to select his own judge; and at some fairs this superintendent has in charge several departments and has his hands full, and the selecting of judges is left to chance. Let the bee-keepers say who would be their choice for a judge, making a second or even a third choice, in case the first choice cannot be secured.

Another thing that makes trouble in judging apiarian exhibits is the lack of a system of scoring. In judging butter, for instance, there is a score of 100 possible points, that is, 100 points is perfection. There are so many points for color, so many for texture, so many for flavor, so many for salting, etc. The judge takes one crock of butter and goes on and scores it, marking upon a score card the number of points to which each characteristic is entitled. He then takes another crock of butter and passes upon that, and it is not until he adds up the points at the end and compares the results that he knows which lot of butter is entitled to the first premium.

Illinois is, I believe, the only State in which has been attempted a system of scoring in judging apiarian exhibits; but no score cards are provided, and last fall the judge did not preserve his scoring, or did not show it, if he made any, and there was some dissatisfaction and surprise at some of the awards, as the exhibitors could not comprehend how such and such results could be reacht by the system of scoring in use. But a system of scoring is a step in the right direction. It is a guide for the judge, relieving him of much responsibility and assisting in his work, and it is also a guide to the exhibitor, as it shows him upon which points of excellence the decision is to be made. In the Illinois code of rules for scoring, quantity is given 40 points in a possible 100.

Many of the items and suggestions are taken from the Illinois code.

COMB HONEY.

Quality	50
Style of display	50

Points of quality should be—

Variety	5
Clearness of cappings	10
Completeness of cappings	10
Completeness of filling	10
Straightness of comb	5
Uniformity	5
Style of section	5

By variety is meant different kinds of honey, with reference to the sources from which it is gathered; by clearness of cappings, freedom from travel-stain and a water-soakt appearance; by uniformity, closeness of resemblance in the sections composing the exhibit; by style, neatness of the sections freedom from propolis, etc., and the size of the sections, the 4¼ by 4¼, being the standard, should take preference over all others.

It is very difficult to make an exact score for all of the different points that enter into "style of display." An illustration or two may be given. Honey put up in ordinary shipping-cases, in which the front side of only one section in seven is shown, and these cases piled up in a cubical pile, is an example of very poor display. Other things being equal, honey so arranged as to show every section should score the highest style of display, and everything that adds to the tastiness and attractiveness of an exhibit should be considered. Sections of honey built up into a church, a castle or a fort, or some fanciful shape, should score higher than that which is simply piled up in a cubical pile.

EXTRACTED HONEY.

Quality	50
Style of display	50

The points of quality should be.—

Variety	5
Clearness of color	5
Body	10
Flavor	10
Style of package	10
Variety of package	5
Finish	5

In style of package, glass should have preference over tin, and flint glass over green glass, and small vessels over large, provided the latter run over two pounds. By finish is meant capping, labeling, etc.

The remarks about style of display under the head of comb honey will apply here. For instance, rows of bottles of honey set upon shelves, drug-store style, is the most common and the poorest style of display. Put the honey up in fanciful glass packages and set them up in the air upon some form that will give to the whole an attractive appearance.

NUCLEI OF BEES.

Color and markings	75
Queen	10
Style of comb	5
Style of hive	10

A nucleus from which a queen is omitted should score zero on that point.

The straightest, smoothest and more complete comb should score the highest in "style of comb."

That hive which is the neatest and best made and shows the bees to the best advantage should score the highest.

In all departments, and under each of the several heads, the best or leading exhibit should be taken as a basis, and scored the highest of the others marked in proportion. It is not likely that any two exhibits will rank equally on all points or in the aggregate.

If any of the fair managers wisht to adopt this set of rules for judging, or if any association of bee-keepers wisht to ask their fair managers to adopt them, and they were considered too lengthy to be printed in the premium list, a note could be added to the list saying that the exhibit would be judged according to the code of rules printed in such a paper for such a date. Intending exhibitors could supply themselves with copies of the paper containing the rules, and the superintendent could supply the judge with a copy of the paper.—Country Gentleman.

Questions AND Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Wants to Stop Swarming.

I commenced the past spring with two colonies, and they have swarmed twice each. Is there any danger of their swarming again this year? If so, what can be done to stop them? ILLINOIS.

ANSWER.—You needn't do anything. There's scarce a shadow of a chance that they'll swarm again. Sixteen days after the first swarm issues you needn't look for any more swarms.

An Unusual Queen.

I expect a big honey-flow this year, as there is white clover everywhere. Some of my hives have three supers of 32 sections each. I have one hive tiered up four stories high—32 Langstroth frames.

I have a queen in one of my hives that lays two, three, and sometimes four and five eggs in each cell; sometime two and three of the eggs will hatch and grow about half size, then the bees take out all but one and seal it over. Any one to look at it would call it the work of a laying worker, but it is not, as all the bees hatch out workers. The queen is as large as any I ever had. This queen was hatcht last fall, and didn't lay till this spring. I saw Mr. L. C. Root two weeks ago, and spoke to him about it. He said she was something of a freak, as he had never seen nor heard of one before. May be Dr. Miller can tell something about it.

I am trying to get ready to go to the bee-keepers' convention at Buffalo. I have never attended any yet.

New York.

Answer.—Mr. Root is right in considering the case very unusual, provided the queen has plenty of room to lay. Sometimes when a queen is crowded for room she will put more than one egg in a cell, but the probability is that in your case there is plenty of room.

Do Swarms Issue Without Drones?

Do drones go with a swarm when they leave for parts unknown? Missouri.

Answer. It is possible that a swarm of bees might issue without any drones, but it is doubtful whether such swarm ever does issue, whether it absconds or not.

Perhaps Crowded Out.

I have a good many colonies, and the bees of one all congregate on the outside of the hive and cover it all over, and have done so for 8 or 10 days. It is a swarm that came from another hive. What is the matter with them?

Missouri.

Answer.—The probability is that there is not room enough in the hive, and not ventilation enough. Raise the hive half an inch or so by putting blocks under the corners, and give additional room by means of supers or otherwise. If in the sun, shade.

Queen-Rearing and Dividing Colonies.

1. I would like some information about rearing queens.

2. What can I do with them after I rear them, until I wish to sell or use them? The "A B C of Bee-Culture" gives two or three ways, but it only gives them as new ideas to experienced queen-rearers, but does not tell how to start, or what to do, or how to keep them until used?

3. Would you divide new swarms this year?

4. What time should I divide?

5. In dividing, how many colonies ought I to get out of every six colonies?

6. I have one common box-hive, with a large swarm in it working well. Would you divide it? Virginia.

Answers.—1. If you are thinking of going into the business of rearing queens for the market, it will be quite desirable to inform yourself in the fullest possible manner as to the details of the business, and you cannot well afford to do without Doolittle's book on queen-rearing. You say that the information given in Root's "A B C of Bee-Culture" is rather for experienced queen-rearers, so you probably want something more elementary in character. In the limited space here allowed, a few hints may be given to help you and others without experience, at least some of the most important points to keep in mind.

A colony whose queen is taken away will rear a queen if it has present eggs or larvæ not more than two or three days old. Even a mere handful of bees on a single comb will promptly go to work to repair their loss, and a strong colony may be divided up into a dozen nuclei to start queen-cells. But if you want good queens for yourself and others, put it down as your first rule that under no consideration will you have queen-cells started in anything but strong colonies. You may take any plan you like as to getting the cells, using artificial cell-cups after Doolittle, using Alley's plan of having strips of cells with young worker-brood, every alternate cell having its larva killed by a match, using drone-cells for cell-cups, or you may leave the bees to their own sweet will as to starting cells wherever they like, but in all cases you must have your cells reared in full, strong colonies. Queens reared in tiny nuclei with a minimum of bees are worth nothing, and less than nothing.

The simplest possible procedure is to go to one of your best colonies, the one having your best queen, having added brood to it a week previous if not strong to your liking, and take away the queen. This must be at a time when the weather is favorable and bees are storing. Nine days after taking away the queen you may take from the colony two frames of brood with bees adhering, being sure that one or more queen-cells are present. Put these two frames in a separate hive, and you have a nucleus that will have a laying queen in less than two weeks. You can form other nuclei in the same way, so that if there are 10 frames of brood in the hive you may have five nuclei from which you can get five good queens.

You may increase beyond this the number of queens reared. A week after the removal of the queen, look through the colony and count how many queen-cells are present. If there are 10 or 12, then you can have 10 or 12 queens. Whatever the number, prepare right away for that number of nuclei. Take away from one or more of your colonies two frames of brood and bees with the queen, putting them in a separate hive. Two days later (which will be nine days from the time of making your first colony queenless) form nuclei by taking for each nucleus two frames of brood and bees, being sure that plenty of bees are in each, for some of the bees will return to their old home. With the small blade of a pocket-knife cut out a queen-cell, having at the upper part or base of the cell perhaps half an inch of the comb more than the cell. Put this cell against the side of one of your frames in a nucleus, nailing it there with a common wire nail an inch and a half long. Be sure to run the nail through the upper part of the piece, and not through the cell itself. Serve all your nuclei in the same way, and your part of the work is done. The bees will do the rest.

After forming your nuclei, the hives with the old queens may be returned to the old place.

While you may rear as many queens as you have cells, it is a wise thing to have more than one cell in a nucleus. When swarming-time comes you will find plenty of good cells in a colony that has cast a swarm.

2. Each queen is kept in a nucleus till wanted.

3. No, take old colonies.

4. The best time is at the time bees are swarming. By feeding you may commence sooner, but it's up-hill busines, if the weather is not warm. You may continue after swarming-time is over, feeding if honey is not coming in.

5. Perhaps 30.

6. Let it swarm naturally.

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offers on page 433.

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United States Bee-Keepers' Union.

Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

MEMBERSHIP FEE—$1.00 PER ANNUM.

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Next Annual Meeting at Buffalo, N. Y., Aug. 24–26, 1897.

Vol. XXXVII. CHICAGO, ILL., JULY 15, 1897. No. 28.

Editorial Comments.

A Note of Warning is wisely sounded by Gleanings in the following paragraph:

> "Look out for irresponsible or new commission houses. They will offer big inducements and talk big about their ratings. They are still abroad in the land, and are waiting to rope *you* in if they can."

There are a good many (sad to say) who will not need any such caution, for they know by bitter experience that there are rascals and thieves among the commission men. But there are a lot more bee-keepers who need just such a warning, and so we reproduce it, tho we gave a similar notice in these columns several weeks ago. But it needs to be repeated in about every other number for the next six months, and then no doubt there will be some careless fellows who think they know enough without reading, who will "get caught," and then send up an awful howl. For, really, there are some so-called honey-producers that *seem* to prefer to lose twenty or thirty dollars on a crooked commission man rather than pay one dollar for a bee-paper—until they have the "experience," and then they are ready enough to heed the advice of the paper. But some people will learn in no other way.

◆

Shall the "Northwestern" be Revived?—We have received the following in reference to a revival of the old Northwestern Bee-Keepers' Society, which, years ago, held such profitable meeting every fall in Chicago:

MR. EDITOR:—Is it not about time to know definitely whether there is to be a revival of the Northwestern at Chicago? Its previous successful conventions were partly due to the fact that advantage was always taken of low railroad rates, and perhaps still more to the wide-awake character of the bee-keepers of the different States surrounding Chicago. Low rates can probably be had this fall on the railroads, and surely the men who run the bees are as wide-awake as ever. Why aren't you the one to issue the call? Let us have a rousing convention. Why not? APIS.

We should hardly like to "issue the call" without there were a number sufficiently interested to join in the request made by "Apis." We believe that next fall an old-time, "rousing convention" could be held here in Chicago again—next November, during the Fat Stock Show. The Illinois State convention could be held at the same time, if so desired, they having say one day, a half day, or the evening sessions.

"Apis" has moved that *we* "issue the call." How many do we hear "seconding" that "motion?" Do it on a postal card, if you so prefer.

◆

Rules for Grading Honey are discust in Gleanings for July 1. As there seems to be quite a difference in the views of bee-keepers on this subject, why would it not be a good plan for all who feel that they can help the matter along, to send their suggestions to Secretary Mason before the Buffalo convention, and then let a committee on grading comb honey be appointed at the opening session, to whom could be referred all the suggestions, and a report be given by the committee on the last day, after which a full discussion could be had?

The committee could, between sessions, formulate a set of rules embodying the most valuable of the suggestions, and then after discussion the very best might be adopted by vote. Then perhaps commission men could be persuaded to quote the markets in accordance with the rules, and thus facilitate the sorting of honey when packing for market. Surely, a good set of rules for grading would be a very great help to all concerned.

◆

The Buffalo Convention Notice has been sent us by Secretary Mason, and reads as follows:

STA. B, TOLEDO, Ohio, July 5, 1897.

MR. EDITOR:—Will you please say in the next issue of the American Bee Journal that the next annual convention of the United States Bee-Keepers' Union will be held in the Main Hall of Caton's Business College, corner of Main and Huron Streets, in Buffalo, N. Y., commencing at 10 o'clock, a.m., of Aug. 24 next, and closing on the afternoon of the 26th?

Papers are to be read by W. Z. Hutchinson, R. F. Holtermann, E. Whitcomb, Hon. R. L. Taylor, Mrs. L. Harrison, R. C. Aikin, G. M. Doolittle, Dr. J. P. H. Brown, Hon. Eugene Secor, Geo. W. Brodbeck, M. B. Holmes, A. E. Manum, E. Kretchmer and P. H. Elwood; to which will be added the President's Address, and perhaps the General Manager and the Secretary may have something of interest to present.

The programs are now printed and in the hands of the Secretary. There are six bee-keepers' songs, with music, in the program, and abundance of time is allotted to the discussion of all papers, and for the asking and answering of questions.

Any one not a member of the Union can have a program sent them by mail on receipt of 5 cents in postage stamps by the Secretary.

Several of our well known bee-keepers, such as A. I. Root, Dr. Miller, S. T. Pettit and others who are not on the program, will be present to help make the convention interesting and instructive.

It is probable that suggestions will be made at this convention in the line of so amending the constitution of the Union as to remove its objectionable features and add such other provisions as may seem desirable, and suggestions in this line by those not able to be at the convention can be sent to the Secretary, to be brought before it. Some suggestions have already been received by the Secretary, and others have been made in the bee-papers.

Those going to the convention should buy round-trip tickets to the Grand Army of the Republic encampment (not to the United States Bee-Keepers' convention), which meets at Buffalo during the last week of August. The G. A. R. have secured a rate of one cent a mile each way in the territory of the Central Passenger Committee, which is included by Toronto, Canada, thence on a line to Port Huron, Mich., all of the southern peninsula of Michigan; Chicago, Peoria and Quincy, Ill., St. Louis, Mo., Louisville, Ky., and Pittsburg, Pa. The Western Passenger Association and the Trunk Line Association make a rate of one fare for the round-trip in their territory to places in the Central Passenger Association, from which points the fare will be one cent a mile each way, but tickets must be purchast to Buffalo from the starting point. Enquire of your ticket or station agent in all territory outside of the above-named for rates and the time the tickets are good for, for I have been unable to learn the rates in such territory, but presume it will be the same as that of the Western Passenger and the Trunk Line Association; but be sure to inquire of your ticket agent as above suggested.

In the Central Passenger and Trunk Line territory tickets will be good going on the 21st, 22nd and 23rd, and if vised at Buffalo will be good, returning, for 30 days.

Mr. O. L. Hershiser, of Buffalo, has charge of arrangements at Buffalo, and will attend to the matter of hotel rates. He writes: "I purpose obtaining accommodations in private families for all bee-keepers who prefer such to hotels." Members of the Union can learn in regard to hotel rates by applying to the Secretary at the place of meeting. If known in time, hotel rates will be given in the bee-periodicals.

A. B. Mason, *Sec.*

If there is any further information desired, write Dr. Mason, who will be glad to explain matters all that he possibly can. In view of the excellent program prepared, and the low railroad rates assured, there ought to be a very large attendance.

Remember that a copy of the 16-page program, with its six beautiful bee-songs, can be had for only 5 cents; or it will be mailed free to any member of the United States Bee-Keepers' Union. If you are not already a member, send $1.00 to the Secretary—Dr. A. B. Mason, Sta. B, Toledo, Ohio—who will mail you a receipt and also a copy of the Buffalo program.

◆

The B. & O. Railroad Company (Baltimore & Ohio) have arranged a delightful route for those going to the meeting of the Grand Army of the Republic in Buffalo, N. Y., the last week in August—next month. The round-trip fare will be only $10.50 from Chicago. This splendid road will take you by way of Cleveland, and from there by boat on Lake Erie. Those attending the bee-keepers' convention at Buffalo at the same time as the G. A. R. meeting, will find the B. & O. a very pleasant route to take, particularly as the ride from Cleveland to Buffalo by water will be no extra expense. The B. & O. will sell tickets going, Aug. 21, 22 and 23. For any further information, address W. W. Picking, City Passenger Agent B. & O. R. R., 193 Clark St., Chicago, Ill. Mr. Picking will be pleased to show you every possible courtesy, and give you a pleasant trip if you go over the line he represents.

◆

The Nebraska State Fair will be held this year at Omaha, Sept. 17 to 24. For premium list and any further information, apply to the Secretary, Robert W. Furnas, Brownville, Nebr.

Hon. E. Whitcomb, of Friend, Nebr., Vice-President of the United States Bee-Keepers' Union, is the Superintendent of the department of "Bees, Honey and Apiary Goods." There is over $250 offered in cash premiums, as follows:

	Premiums—1st.	2nd.	3rd.
Best comb honey, basswood or white clover, not less than 20 lbs., crated and in single-comb sections weighing not more than 2 lbs. each	$ 5	$3	$2
Best alfalfa honey, the same amount and crated as above	5	3	2
Best sweet clover honey, the same amount and crated as above	5	3	2
Best fall honey, the same amount and crated as above	5	3	2
Best 20 pounds extracted white clover or basswood honey	3	2	1
Best 20 pounds extrated alfalfa honey	3	2	1
Best 20 pounds extracted sweet clover honey	3	2	1

The above to have been extracted previous to July 1.

	Premiums—1st.	2nd.	3rd.
Best 20 pounds extracted heart's-ease fall honey, to have been stored after Aug. 1	3	2	1
Best 20 pounds extracted alfalfa fall honey, to have been stored after Aug. 1	3	2	1
Best 20 pounds extracted sweet clover fall honey, to have been extracted after Aug. 1	3	2	1
Best and largest display by any one, including bees, extracted and comb honey	10	5	3
Best exhibit in beeswax	5	3	1
Best exhibit of apiarian supplies and implements	10	5	3
Best display of honey in marketable shape, products of exhibitor's own apiary	10	5	3
Best display of honey-candy, honey-sugar, and sweets by any one in which honey is made to fill the place of sugar	3	2	1
Best honey-vinegar, not less than ½ gallon	2	1	
Best display of bees and queens in observatory hives and not allowed to fly, not less than five cages	10	5	3
Best exhibition of extracting honey, to be exhibited upon the grounds, under the direction of the Superintendent, not later than Thursday of the Fair	5	3	2
Best honey extractor, test to be made by actual extracting upon the grounds	3	2	1
Best all-purpose single-wall hive	2	1	
Best all-purpose chaff hive	2	1	
Best bee-smoker	1	50c.	

The following are confined to exhibitors in Nebraska alone:

	Premiums—1st.	2nd.	3rd.
Best display of apiarian implements and supplies, including comb foundation drawn, and bees in cages	5	3	2
Best report of surplus honey stored by any colony of bees during the year 1897, the amount of stores, manner of building up, handling, kind of hive used, kind and quality stored, to be verfied by owner. Entries to conform with other entries of this class, and report, with verification, to be filed with Superintendent not later than noon on Thursday of the Fair	10	5	3
The county in Nebraska showing the best collection of honey of all kinds, any or all ages, shapes and conditions	15	10	5

The exhibits must have been produced in the county exhibiting, and the product of not less than five apiaries. Individuals composing this collective exhibit may compete for any or all minor premiums offered.

	Premiums—1st.	2nd.	3rd.
Best collection of honey-producing plants, giving time of blossoming, with common and proper names	10	5	3

In view of the above liberal list, there ought to be a large apiarian display at the Nebraska Fair this year. We shall hope to be favored with a list of the premium winners for publication in these columns.

The Horse—How to Break and Handle.—This is a pamphlet of 32 pages, giving complete instructions for breaking and educating colts, teaching horses to drive, and for use under the saddle, together with many instructions which have never before been publisht, and which are the result of the author's experience covering a period of 20 years. By Prof. Wm. Mullen, with whom the editor of the Bee Journal is personally acquainted. Price, postpaid, 20 cents; or given as a premium for sending us one new subscriber to the Bee Journal for the rest of the year at 50 cents.

◆

The Names and Addresses of all your bee-friends, who are not now taking the Bee Journal, are wanted at this office. Send them in, please, when sample copies will be mailed to them. Then you can secure their subscriptions, and earn some of the premiums we have offered. The next few months will be just the time to easily get new subscribers. Try it earnestly, at least.

◆

Back Numbers Since Jan. 1.—We are able to supply complete sets of the Bee Journal since Jan. 1, 1897, to any who may desire, at two cents per copy. There are a number of new readers who perhaps would like to get some of the first numbers of this year, to complete their volume for 1897. We shall be glad to furnish them as long as they last, at two cents each.

◆

☞ See "Bee-Keeper's Guide" offer on page 448.

The Weekly Budget.

MR. EBER LUCAS, of DeKalb Co., Ill., wrote us July 6: "The bees are doing the best here they have in 15 years."

MR. FRANK SNYDER, of Jones Co., Iowa, writing July 3, said: "My crop so far is about 5,000 pounds, with prospect for as much more."

MR. M. D. ANDES, of Sullivan Co., Tenn., wrote us July 3: "Bees are doing nicely. They have swarmed too much, tho, for best results."

REV. E. T. ABBOTT, of Missouri—editor of The Busy Bee—expects to attend the Buffalo convention. We shall be glad to announce the names of others who intend being present.

MR. B. G. FOAT, of Racine Co., Wis., wrote us July 7:

"I have 18 colonies, and they are doing fine. I receive the Bee Journal every week, and it is worth its weight in gold—in fact, I cannot speak too highly of it."

MR. J. T. CALVERT—Business Manager of The A. I. Root Company—is now in California, having taken advantage of the Christian Endeavor excursion rates. He expects to reach home July 24. We hope to have the pleasure of seeing Mr. Calvert again when on his homeward journey.

"SARAH J. ELDREDGE AND ALBERT J. COOK, married Saturday, July 3, 1897, at Pasadena, Cal. At home after Sept. 15, 1897, at Claremont, Cal." So reads an announcement we received July 9. Our heartiest congratulations and best wishes to Prof. Cook and his "queen." Long life and abundant happiness be unto them.

DR. E. GALLUP, of Orange Co., Calif., wrote us July 1:

"I send you a new subscriber to the American Bee Journal, who is by far the largest honey-producer in Orange county. He informed me this morning that he shipt two carloads of honey last January—one to San Francisco and one to Kansas City—and says he thinks both parties are going to swindle him. May be California will roll up some honey this season. I have now 88 colonies, and they are rolling in honey every day; but I have workt for increase more than for honey."

MR. WM. MCEVOY—Ontario's successful foul brood eradicator—has an article on page 435, which will answer several questions that have been sent us lately. It is the result of the examination of samples of comb with dead brood sent to Mr. McEvoy recently, and should be of real value to many who, upon finding dead brood in their hives, fear that it is foul brood. Read it carefully, and follow Mr. McEvoy's instructions. He's a safe guide in such matters, as well as in every line of successful bee-keeping.

MRS. B. J. LIVINGSTON, of Martin Co., Minn., will be remembered by many as one of our best lady correspondents. Recently we received the following letter from a sister of hers, telling of a very great misfortune that she has met with:

During the month of April I was commissioned by my dear sister—whom you all know as Mrs. B. J. Livingston—to write you an account of the misfortune that has taken her permanently from your midst, and from her beloved "servants," the bees.

Early in January, she was smitten with a very painful disease of the eyes. For three months she suffered terribly; and then, as a last resort, came to Mankato, to our good oculist, Dr. James, to be treated. He found her suffering from a disease which consists of enlargement of the pupil of the eye, and hardening of the eyeball itself. A very difficult, delicate, but entirely successful operation, was performed upon both eyeballs, Dr. Harrington assisting, and the painful pressure relieved.

After staying in Mankato two weeks, and undergoing further treatment, she returned to her home, greatly improved.

Mrs. Livingston's eyesight will probably never be *good* again. She may never sew, write, or care for her bees or flowers. Her life will most likely be shrouded in twilight. But she has been the moving spirit in the big farmhouse and garden, and the prevailing presence of the field thereof for the past 30 years. Her children have risen up to call her blessed. She can still smell the flowers and taste the honey. She has earned her rest. She is more contented and happy than many who can see; and she has her reward.

DELLE S. KEENAN.

Surely, all our readers will join us in extending sincerest sympathy to Mrs. Livingston in her sad affliction. We who can see well cannot imagine how great must be the misfortune of those who are deprived of their eyesight. Let us all, who are blest with good eyesight, be thankful therefor, and also hope that tho our sister may not again see as heretofore, there may come into her life some great blessing that shall in a measure make up for the almost total loss of sight.

DR. A. B. MASON, Secretary of the United States Bee-Keepers' Union, Toledo, Ohio, writing us July 5, said:

"Our thermometer said 95° yesterday. Our bees are gathering more clover honey this season than ever before, and there is still 'worlds' of clover in bloom. Most of our apiary sets on an adjoining lot, and right among and in the shade of sweet clover, some of which is higher than my head, and just nicely coming into bloom. From an upstairs window (in my den) I can look down upon the apiary and acres of sweet clover. It is 5 o'clock a.m., and HOT. I extracted some nice honey Saturday evening—too hot to work during the day."

MR. N. E. FRANCE, of Grant Co., Wis., the State Inspector of Apiaries, wrote us as follows July 5:

"Once more I am home with my hired bee-boys. As they wanted the Fourth for a holiday, I offered them a treat if they would help me extract the honey to-day from the home bee-yard. They began at 8 a.m., and had 2,100 pounds out by noon, finishing soon after with 2,780 pounds. My crew are now (3 p.m.) in the city playing a game of baseball—called "France's Nine." Up to date we have extracted 27,135 pounds, with abundance of clover and basswood beginning to open. I am getting many reports lately of cases of foul brood cured where I have visited and prescribed treatment."

Encyclopedia for Beeswax.—Some time ago we offered a splendid work of eight large volumes, called "The New Standard American Encyclopedia," having nearly 4,000 pages, and over 300 colored maps, charts, and diagrams. Size of volume, 2 inches thick, 8½ wide, and 11½ long. As per that offer, last publisht on page 186, the eight volumes were offered by freight for only $19 cash. We can furnish a set or two at that price, bound in half morroco; or will exchange a set for 75 pounds of yellow beeswax, delivered at our office. You would be more than satisfied with the Encyclopedia, and a set of such books ought to be in every family for reference.

The Alsike Clover Leaflet consists of 2 pages, with illustrations, showing the value of Alsike clover, and telling how to grow it. This Leaflet is just the thing to hand to every farmer in your neighborhood. Send to the Bee Journal office for a quantity of them, and see that they are distributed where they will do the most good. Prices, postpaid, are as follows: 50 for 20 cents; 100 for 35 cents; or 200 for 60 cents.

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

Now is the Time to work for new subscribers. Why not take advantage of the offers made on page 433?

BEE-BOOKS

SENT POSTPAID BY

George W. York & Co.,
Chicago, Ills.

Bees and Honey, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages, and 245 illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold-lettered. Price, $1.00.

Langstroth on the Honey-Bee, revised by Dadant—This classic in bee-culture, has been entirely re-written, and is fully illustrated. It treats of everything relating to bees and bee-keeping. No apiarian library is complete without this standard work by Rev. L. L. Langstroth—the Father of American Bee-Culture. It has 520 pages; bound in cloth.

Price, postpaid, $1.25.

Bee-Keepers' Guide, or Manual of the Apiary, by Prof A. J Cook, of the Michigan Agricultural College.—This book is not only instructive and helpful as a guide in bee-keeping, but is interesting and thoroughly practical and scientific. It contains a full delineation of the anatomy and physiology of bees. 460 pages; bound in cloth and fully illustrated.

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Scientific Queen-Rearing, as Practically Applied, by G. M. Doolittle.—A method by which the very best of Queen-Bees are reared in perfect accord with Nature's way. 176 pages, bound in cloth, and illustrated. Price, $1.00.

A B C of Bee-Culture, by A. I. Root.—A cyclopædia of 400 pages, describing everything pertaining to the care of the honey-bees. It contains 300 engravings. It was written especially for beginners Bound in cloth. Price, $1.25.

Advanced Bee-Culture, Its Methods and Management, by W. Z. Hutchinson.—The author of this work is too well known to need further description of his book. He is a practical and entertaining writer. You should read his book. 90 pages, bound in paper, and illustrated. Price, 50 cts.

Rational Bee-Keeping, by Dr. John Dzierzon—This is a translation of his latest German book on bee-culture. It has 350 pages; bound in paper covers, $1.00

Bienen-Kultur, by Thomas G. Newman.—This is a German translation of the principal portion of the book called BEES OF HONEY. 10 page pamphlet. Price, 40 cents.

Convention Hand-Book, for Bee-Keepers. Thomas G. Newman.—It contains the parliamentary law and rules of order for Bee-Conventions—also Constitution and By-Laws, with subjects for discussion, etc. Cloth, gold-lettered. Price, 25 cts.

Thirty Years Among the Bees, by Henry Alley.—Gives the results of over a quarter-century's experience in rearing queen-bees. Very latest work of the kind. Nearly 100 pages. Price, 50c.

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Bee-Pasturage a Necessity.—This book suggests what and how to plan It is a chapter from BEES AND HONEY. Price, 10 cents.

The Hive I Use, by G. M. Doolittle. It details his management of bees, and methods of producing comb honey. Price, 5 cents.

Dr. Howard's Book on Foul Brood.—Gives the McEvoy Treatment and reviews the experiments of others. Price, 25 cts.

Dictionary of Apiculture, by Prof. John Phin. Gives the correct meaning of nearly 500 apicultural terms. Price, 50 cts.

Winter Problem in Bee-Keeping. by G. R. Pierce. Result of 25 years' experience. 30 cts.

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Foul Brood, by A. R. Kohnke.—Origin. Development and Cure. Price 10 cts.

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Bee-Keeping for Profit, by Dr. G. L. Tinker.—Revised and enlarged. It details the author's "new system, or how to get the largest yields of comb or extracted honey." 80 p.; illustrated. 25c.

Emerson Binders, made especially for the BEE JOURNAL, are convenient for preserving each number as fast as received. Not mailable to Canada. Price, 75 cts.

Commercial Calculator, by C. Ropp.—A ready Calculator, Business Arithmetic and Account-Book combined in one. Every farmer and business man should have it. No. 1, bound in water proof leatherette, calf finish. Price, 40 cts. No. 2 in fine artificial leather, with pocket, silicate slate, and account-book. Price, 60 cts.

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7. Advanced Bee-Culture	1.30
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General Items.

Rolling in White Clover.

I am very much pleased with the American Bee Journal, and think I will continue taking it as long as I keep bees.

I began the past spring with 8 colonies and have increast to 23, and they are not through swarming yet. Bees are just rolling in the white clover honey.

Cal. Cutrell.

Tippecano Co., Ind., July 4.

Honey Low in Price.

I have 50 colonies of bees, having begun in the spring with 25. There is lots of white clover and a great deal of buckwheat sown here this summer. I have sold about 200 pounds of honey. I sell at the town. Honey is low this season—3 pounds for 25 cents. I had a fine swarm come out on July 4. There are a great many bees kept throughout this county.

Long live the United States Bee-Keepers' Union and the American Bee Journal.

Wm. Howell.

Union Co., Iowa, July 4.

Quite Discouraging Outlook.

I notice in Gleanings, the Editor, in speaking of the outlook for a honey crop, says that from the present prospects it looks as if there was going to be an enormous crop of honey from white clover. If this be correct then in this vicinity we are left out entirely, for mine and my neighbors' bees hardly make their living from day to day, with any amount of white and Alsike clover within from 5 to 160 rods of their homes, in full bloom for the past two weeks, with fairly good weather for the bees to work, and the hives so full of bees and brood that they boil over. But they are all idle most of the time. Some days I can hardly see a drop of honey in the combs. They are working on oak and willow leaves to help make their living. Linden buds are frozen.

C. Theilmann.

Wabasha Co., Minn., July 7.

A Woman's Swarming Experience.

June 13.—Bees are getting lively. There were three new swarms yesterday, and two to-day. An old clipt queen led out a fine swarm today. I just caged the "old lady," then moved the hive to one side, put another on the stand, and very soon they were all back, as quiet as ever. Then I went into the shop after another hive, and began to clean it out, and before I had it ready there was another swarm coming out. It settled on a grape-post, and it was a fine job to get them off, but they had to yield.

But the most fun was yesterday. Nos. 8 and 10 came out at the same time, and they, too, lit on a grape-vine post, so I took two hives and set them down, one on each side of the post, and went to work, and in a few minutes there was a line of bees going into each hive at the same time. But the funny part is still to come: I moved the two colonies back, and put the new ones on the old stands.

(Oh, dear, there comes another swarm. Please excuse me for a short time.)

Well I hived them all right, and now

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I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now.

Dr. Geo. Lacke, Newburgh, Ind.

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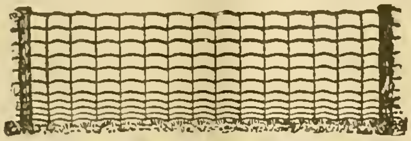

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Mention the American Bee Journal.

where was I ? Oh, yes, I was telling about those two swarms. Well, in setting the new swarms on the old stands I got them mixt, and set the No. 8 queen on the No. 10 stand, and the working force of No. 10 killed the No. 8 queen, so I had to put No. 10 back on the old stand, and all I lost was an old black queen.

If I have to take care of bees another year I shall clip all the queens, for it is just fun then to hive them, but I tell you it is all that I can do to move the old hives. I moved one to-day that I think would weigh 150 pounds.

If nothing happens there will be a big crop of honey this year. The white clover is just a sight. The pastures and lanes, and all along the roadside are white.

June 14.—Well, I have had another bee-picnic since. Just as we were eating dinner one of the swarms I hived on Saturday came out, so I went to see where they were going to alight, but instead of alighting they went off to the wood, and I kept after them and followed them to their home in a big maple tree, about 40 feet from the ground.

(MRS.) MARY SUTHERLAND.

Berrien Co., Mich.

Too Many Heavy Rains.

Bees have been doing very well, but have lost at least one-half of the basswood bloom on account of too many heavy rains. S. A. MATSON.

Nodaway Co., Mo., July 6.

White Clover Not Yielding.

There has been more white clover bloom in this part of the country than for many years, but the bees do not work on it very much. We expect a good flow from sweet clover, which is just coming into bloom. G. W. STEPHENSON.

Cook Co., Ill., July 5.

Plenty of White Clover.

Bees are doing well. There is plenty of white clover, and the prospects are good. E. B. HUFFMAN.

Winona Co., Minn., July 5.

Crimson and Other Clovers.

Last season I bought a small amount of crimson, Alsike, sweet, alfalfa, and white clover, to experiment with in this section of country, seeing they were all spoken highly of for honey and hay. I sowed the Alsike, alfalfa, white and part of the crimson about April 1, with oats. The spring was very dry, and it seemed none of it did any good.

I saved part of the crimson and sweet clover, and sowed later. I sowed the crimson with buckwheat, Aug. 12, and got a fine stand of the crimson—about one acre—which I cut about two weeks ago, and got 9 wagon loads of hay to the acre ; but I let the clover get too ripe to make good hay, in order to get the seed, and now on the same piece of ground the crimson clover is up again, covering the ground from the seed that dropt while cutting, which I run my harrow over as soon as cut.

I sowed a small lot (about ½ acre) in sweet clover, which bloomed about the same time the crimson was in bloom, and to my surprise I never saw a worker-bee on a blossom of sweet clover, but, on

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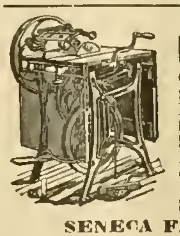

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GUS DITTMER,
AUGUSTA, WIS.

the contrary, as soon as the crimson began to show the ends of its nice bloom, the bees began to gather honey from it, and workt well for over two weeks, until the bloom got too old for them to gather honey. So I will sow about 20 acres of crimson from the seed that I saved from the ½ acre, part of which I will sow in laying-by corn.

Nothing in my way of thinking will pay as well as crimson clover. Sow it any time in the latter part of July or August, and if you do not wish to mow it, it pays to sow for early pasture and bloom for the bees. But I never had such a "turn off" for hay as the one acre in crimson clover. I am highly pleased so far with the crimson clover, and will try it further.

J. C. WILLIAMSON.

Mingo Co., W. Va. July 3.

Fine Prospects for a Good Crop.

The prospects for a good honey crop in this county is very fine. The fields are white and fragrant with white clover blossoms, and the waste places and roadsides are white with sweet clover; besides, we have a goodly number of linden trees in our forests that are just coming into bloom. The extreme hot days have made swarming a little too numerous, which is the only draw-back we have had for comb-honey producers. Quite a number of city and farm bee-keepers are discarding old-style hives and putting their bees into modern ones.

KANKAKEE.

Kankakee Co., Ill., July 5.

Swarming, Robbing, Etc.

I don't know how valuable the American Bee Journal may be to people who already know it all, but an ignorant novice like myself should find it his best text-book. I find it so. It is said, "Knowledge is golden," and it is not saying too much of the Bee Journal to describe it as being worth its weight in gold to any one who keeps bees from one colony up.

I don't know much about bees, and it seems as tho the more I learn the less I know, for the field broadens out into illimitable space. The article by Mr. Faylor, on page, 370, was particularly interesting to me, especially the paragraph on "increase." But in speaking of ventilation by raising the hive from the bottom-board, I would like to ask Mr. Faylor how he prevents robbing, or inciting to rob. Perhaps his bees and those of his neighborhood are well-behaved, Christian bees, and abstain from such nefarious practices, no matter how great the temptation. Unfortunately for me, the wild and woolly inhabitants of this Far West are controlled by no righteous sentiments, and I am obliged to keep blocks close down on my hive-entrances when honey is scarce, leaving only a small entrance, and thus forcing the bees to hang out. Won't some expert tell me what I ought to do under such circumstances to help the bees protect home and country, and at the same time afford ample ventilation?

Altho I know the futility of wishing, I can't help indulging in the pastime occasionally, wishing:

1st. That the Government might establish a Traning School for bees, where they might be taught good manners, and especially be discouraged in using their harpoons on the wrong fellow. A single incision of that instrument causes in me a case of "that badly stung feeling" which puffs things up like a wind-bag; nor all the king's horses nor all the king's men, ammonia, soda bicarb., permanganate of potash or what-not will cause the painful inflation to subside.

2nd. That some one might teach the naughty little bees that it's wicked to rob.

3rd. That some one might invent a quick and easy way to find the queen when wanted. Of course, I know the wise old vets of the "perfesh" have only to poke their noses (well-capt) under the "kivver" and squint, when immediately they light (the squint, not the noses, bless us!) on Mrs. Queen perambulating among 50 million (more or less) bees, looking for stray queen-cells whom she might devour. It's so easy for the books to say: "Be sure you get the queen;" or, "be sure you don't get her," as the case may be; but what awfully hard work this "being sure." My eye isn't keen enough to see 'em, only when I don't want 'em.

Now, I've had my three wishes. Won't some good fairy grant them by a kindly word of advice to a "feller wot don't know nothin'" about bees.

This spring was an exceptionally good season for bees in this locality. We had fair weather from the first of April, giving a chance to gather the first and best honey which was clear and white, and was also well combed. Usually our honey is dark, some of it very dark, altho it is a surer crop than in some California places. There is not much now but elder blossoms, and won't be till fruit ripens.

There are a number of bee-keepers hereabouts, some of whom know it all, some of whom don't want to know anything, and more of whom, I warrant, never take bee-paper or book. I have a neighbor who fills the bill in all particulars. His bees swarmed in early spring, by the million, and about half of them ran away to the mountains near by. In fact, decamping swarms have been flying over our heads all spring. It is now trying to rain—an unusual thing for this part of the world, this time of year.

GEO. H. STIPP.

Santa Clara Co., Calif., June 25.

Old-Time Honey-Flow—Unfortunate.

We are having an old-time honey-flow this season. There is the most white clover here this year there has been for many seasons.

I have been somewhat unfortunate. While sawing out nucleus boxes with a buzz-saw, my hand in some way got too close to the saw, which left me minus the index finger and a badly chewed-up thumb. As I did not like the looks of a hand without a finger, I had it sewed on again, and in the meantime have been working with the bees with one hand. There is nothing like having two good hands to work with, altho I have done all kinds of work with the bees by the use of one hand—rearing queen-cells and caging queens, included.

I have something on bee-paralysis, which I will send along by-and-by.

H. G. QUIRIN.

Huron Co., Ohio, July 1.

Bee-Keeper's Guide—see page 448.

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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., July 7.—Fancy white, 12@13c.; No. 1 white, 11c.; fancy amber, 10c.; No. 1 amber, 7@9c.; fancy dark, 8c.; No. 1 dark, 7c.; white, extracted, 5@6c.; amber, 4@5c.; dark, 3½@4c. Beeswax, 26@27c.

Not any new comb on the market. Extracted offerings are free, and sales very few, causing a weak market.

St. Louis, Mo., July 5.—Fancy white, 12@12½c.; No. 1 white, 11@11½c.; fancy amber, 10@10½c.; No. 1 amber, 9@10c.; fancy dark, 8½@9c.; No. 1 dark, 7@8c.; white, extracted, 4¾@5c; amber, 4¼@4½c.; dark, 3½@4c. Beeswax, 25½@26c

Movement of honey is very light; the weather too warm, and prices are nominal. Very little selling.

Indianapolis, Ind., July 5.— Fancy white, 10@12½c.; No. 1 white, 9@10c; white, extracted, 4@6c. Beeswax, 25@27c.

Big crop is being secured in this State. No demand for other grades than those mentioned.

Cincinnati, Ohio, July 5.—No. 1 white, 10@13c.; No. 1 dark, 8@10c; white, extracted, 5@6c.; amber, 4@5c.; dark, 3½@4c. Beeswax, 22@25c.

There is a fair demand for extracted honey, which, however, must be sold cheap to meet the buyer, as the great bulk goes to the manufacturer. Demand for comb honey is slow, as usual, at this time of the year. Several shipments of new comb honey have arrived already.

Albany, N. Y., July 5.—Fancy white, 11@12c.; fancy amber, 7@8c.; fancy dark, 6@8c.; white, extracted, 5c; dark, 4c.

But very little is doing in honey this month. There is a small stock of inferior comb honey on the market, and quite a little extracted. Bees are said to be doing nicely in this section.

Buffalo, N. Y., July 6.—Fancy white, 9@10c.; No. 1 white, 8@9c.; fancy amber, 7@8c.; No. 1 amber, 6@7c; fancy dark, 5@6c.; No. 1 dark, 4@5c.; white, extracted, 5@6c. Beeswax, 23@28c.

No demand now for either new or old honey, a t o it can be sold, of course, at some price.

Milwaukee, Wis., July 6.—Fancy white, 12@13c.; No. 1 white, 11@12c.; fanch amber, 9@10c.; No. 1 amber, 8@9c.; No. 1 dark, 5@7c.; white, extracted, 5@6c.; amber, 4½@5c.; dark, 4@4½c. Beeswax, 26@28c.

The supply of honey is ample for all demands, and some old stock is yet on hand that is very hard to move, as quality is poor. The fancy is nearly all gone. Extracted moved some during the last week. Small receipts of new—quality common. We think our market will be in good order for shipments of new crop. We hope there will be a markt improvement in quality and package, all along the line.

Kansas City, Mo., July 7.—Fancy white, 13-14c.; No. 1 white, 12-13c.; fancy amber, 11-12c.; No. 1 amber, 10-11c.; fancy dark, 9-10c.; No. 1 dark, 8-9c.; white, extracted, 5-5½c.; amber, 4½-5c.; dark, 3½-4c. Beeswax, 30c.

New comb honey has begun to come in, but no new extracted. The demand is not large on account of fruit and vegetables being so plentiful.

Detroit, Mich., July 7.—Fancy white, 10-11c.; No. 1 white, 9-10c.; fancy amber, 8-9c.; No. 1 amber, 7-8c; fancy dark, 6-7c.; white, extracted, 5 6c.; amber, 4-5c.; dark, no sale. Beeswax, 25-26c.

There is some old honey in the market and new is arriving.

Boston, Mass., July 6.—Fancy white, 13c; No. 1 white, 11-12c.; white, extracted, 7-8c.; amber, 5-6c. Beeswax, 26c.

Honey is selling slowly now, but this is expected during warm weather. Beeswax is practically out of market as far as supply is concerned, but the demand is good.

Cleveland, Ohio, July 7.—Fancy white, 12½c.; No. 1 white, 10-11c.; fancy amber, 9c.; fancy dark, 6-7c. Beeswax, 28-30c.

Honey is moving very slowly; no demand for it whatever.

San Franciaco, Calif., July 5.—White comb, 1-lbs., 7-9c.; amber comb, 4-6c.; extracted, white liquid, 4½-5c.; extracted, light amber, 3½-4c.; dark tule, 2¾c. Beeswax, fair to choice, 25-26c.

A grain vessel clearing the past week for Liverpool took 200 cases of extracted honey, which is the first noteworthy shipment outward this season. The market remains easy in tone, with liberal offerings, mostly of water white extracted. The foreign demand is mainly for amber grades at about 3½c., but not much has so far been obtained at this figure, and only the most ordinary qualities.

New York, N. Y., July 6.—Our market is bare of comb honey, and some demand for white at from 10-11c. Market on extracted is rather weak; demand slow of late, and arrivals plenty. We quote: Southern, average common grade, 50c. per gallon; better grades from 55-60c.; California, light amber, 4½-4¾c.; white, 5-5¼c. Beeswax remains steady at 26-27c.

Philadelphia, Pa., July 10.—Fancy white, 13@14c.; No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 8@9c.; No. 1 dark, 7@8c. Extracted, white, 5@6c.; amber 4@5c.; dark, 4c. Beeswax, 25c.

New honey has commenced to arrive. Very little call at present. To-day is very dull. Prospects are for very low prices. Biggest honey crop in 10 years.

Minneapolis, Minn., July 10. — Fancy white, 12@14c.; No. 1 white, 11@12c.; fancy amber, 10@11c; No. 1 amber, 9@10c.; fancy dark, 8@0c.; No. 1 dark, 7@8c. Extracted, white, 6@7c.; amber, 5@6c.; dark, 4@5c. Beeswax, 24@27c.

Demand for extracted honey is nominal, but at fair prices. Comb very slow on account of warm weather.

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Contributed Articles

Adulteration—Enforcement of Present Laws.

BY C. P. DADANT.

A few weeks ago I wrote my views about getting more laws on the subject of adulteration. I held that, in my judgment, we have laws enough in existence to give us the power of crushing adulteration, like all other swindles that can be proven. I hope some of our law friends will not arise and prove to me that I am wrong, and that *law* and *common-sense* do not agree. I wish, just now, to bring to the attenion of the readers of the American Bee Journal some facts that strengthen my views very materially.

A firm in Keokuk, Iowa—one of the oldest, most extensive and most reliable dealers in chickens and eggs in the West—also occasionally handles beeswax. Some four or five weeks ago they sent us word that they had a lot of beeswax—about 400 pounds—which they desired us to see at once, as the party who had sold it to them had a lot more of the same grade that he wisht to dispose of, and they feared that it might not be pure. As they had occasionally been cheated by hucksters selling them beeswax adulterated with tallow, we supposed they were afraid of this lot containing tallow, and we askt them to send us the "wax" the next trip of our team to Keokuk, and we promist to report at once if the lot was not right.

The "wax" came in due time, and a beautiful lot it was—but not a bit of it beeswax—it was all paraffine, or mineral wax. The usual test that we applied left us no room for doubt. It was a $50 swindle, as the firm had paid 22 cents for an article that was hardly worth 10 cents per pound.

Two of the firm came over to see us the same evening, and told us that they had been unable to tell by the looks of the goods that the lot was not right, but that they mistrusted it, because the man was evidently a city agent, and he was so very anxious to sell them more beeswax at a price lower than the market rate then. Upon being assured by me that the lot was not at all beeswax, they returned to the city and had the fellow arrested for obtaining money under false pretense. This young man, who gave his residence as Chicago, was very much crestfallen after a night spent in the Keokuk jail. He telegrapht at once to his folks in Chicago for a cash bond, which was fixt by the Judge of the Criminal Court at $500, by which he was bound to appear in 10 days and establish his defense. I was summoned as an expert to testify to the quality and value of the goods in question.

The upshot of this was that the case was postponed till a week ago, when an expert lawyer came from Chicago and pleaded the case with the Judge and the City Attorney, and the case was finally dismist upon the payment of a fine of $75 and all the costs and expenses accrued, besides satisfying the firm in their damages, and myself for my trip to Keokuk.

Now, brethren, was not this a good lesson for Mr. Chicago Man? And can't we keep Mr. Glucose from passing himself for Mr. Honey in the same way that this was done? At any rate, can't we make it hot enough, if we unite on it, for these fine gentlemen who try to get rich by defrauding the consumer and the producer, to make them sick of the job?

I see, on page 405, that Prof. Cook is for the action of the Old Union against adulteration. Good. But, gentlemen, why two Unions? Can't we lay aside all disputes and come together? I belong to both, and am willing to help both, but how much stronger we should be if we stood together as one man!

It does not matter what is done. The time has come to stop the frauds, and I say, don't let us wait for more laws, but use the laws we have, and see if we can't scare these unprincipled parties out of their nefarious business. I believe that when we go at it, we will find them much less numerous than we imagine, and as easy to scare out of their swindle as the little robber-bee when she tries to get into the neighboring hive to pilfer what is not her own. Hancock Co., Ill.

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Making Bee and Honey Exhibits at Fairs.

BY J. C. WALLENMEYER.

I do not believe a more aprropriate place could be found to advertise one's business than a State, county or district fair. The display of bees, honey, wax, and apiarian implements certainly has a very decidedly educational influence on the ever disbelieving and suspecting public, and besides having a tendency to develop our industry, will popularize the consumption of our honey by the masses. As yet, our Tri-State Fair Association does not offer enough premiums in the apicultural department to more than barely cover the expenses of a display, if it be a small one. If a large exhibit is attempted, the exhibitor certainly will be out of pocket if he depends upon immediate sales to cover expenses.

I have no doubt, whatever, that if the directors of any fair grounds are askt to give free space to an apicultural exhibitor, to sell honey lemonade, in order to offset the expenses incurred in making a display of bees and honey, the grant will freely be given. In return for this favor, if you are grateful, you will give free lemonades to all fair-ground officials, judges and superintendents of the various departments, who, you may be sure, will not fail of giving you plenty of free advertising.

Having secured a large crop of fine comb and extracted honey from the dry-weather honey-vine in the fall of 1894, and having no establisht market for a large crop, I decided to make an exhibit. The premiums offered were very small, but I thought I would sell at least the larger portion of my crop.

GETTING FAIR VISITORS INTERESTED.

In order to attract attention to my exhibit, I had pie-eating contests and doughnut-eating contests, for boys, and guessing contests for the older persons. Entries were free, and large jars of honey were given for prizes to the lucky persons. I must say it was a very amusing sight to see 25 boys of all sizes and ages line up beside a long table, each one ready to demolish a large (12-inch) red-hot apple-pie (like mother used to make) that lay before him on a tin plate, the very moment the judges gave the signal. To make it more interesting, each boy had his hands tied behind him, so that he had to eat from the plate with his mouth! Of course, each one was confident of coming out first, and as there were five prizes there would be only 20 that would be disappointed. This event was advertised by placards tackt around on the buildings, to take place every day at 3 p.m. in front of the bee and honey exhibit. So a great crowd congregated to see the sport. Each particular boy had his host of admirers.

After several false starts occasioned by cries of "Go," "Eat," etc., from the impatient crowd, Judge Curnick succeeded in getting them all off together. They dived into their pies with a will. Then the fun began, and the crowd commenced to laugh. The pies were hot, but that made no difference. A few small boys hesitated, having burnt their noses. As an inspiration, I put the prize jars of honey on the table. Upon sight of those precious prizes, they immediately resumed operations at a winning gait. They rooted into those pies like hogs, some having their nose and eyes all smeared over with pie. At this the crowd roared, and held their sides, some coaching their favorites to do their best. Some never chewed their pie at all—just swallowed it down.

I remember the first prize winner, particularly. He was a great, long-legged, rawboned, freckle-faced country lad, with red hair. He only weighed 78 pounds, and seemed all stomach from his neck to his knees. But there wasn't anything wrong with his appetite. No, indeed. He put it all over our city boys. His first bite was a 4x6 right out of the center. Finding it hot, he gave a convulsive gasp, stretcht his neck, got a hump in his back, rolled his eyes, and down she went, and I should judge from his looks that there was a decidedly uncomfortable feeling in the region of his feed-sack. It only took him two seconds to recover, when he did the same thing again to the entire satisfaction of the crowd. They shouted and roared, and held their sides. They could stand it no longer—seams ript, and buttons flew in all directions.

The boys' heads bobbed up and down like a gang of ducks diving in a pond. The country lad got through first, but there was such a mixt up affair of boys, pies and plates, and pie-faces, and some of the boys had their faces so smeared up with "pie" that we could hardly recognize them in order to give them credit for the order in which they finisht. There were only eight that claimed first prize, and to cap the climax, while we were trying to get at the order in which the first five finisht, the tail-enders walkt off unnoticed in the heat of the discussion with all the prizes.

In order to satisfy all, I decided to give each participant a jar of honey, when, to my consternation, there were 40 in line. This state of affairs was so unsatisfactory that I discontinued giving any more pie-eatimg contests then and forever.

I believe I got more advertisement from the above contest than a page advertisement in our local paper would have given me. I only mention these items to show how one can attract a crowd, and get them interested in one's exhibit, and, incidentally take their orders for honey, for if you are any kind of a talker at all you will soon learn how to pull orders from people once you get them interested in your exhibit. I have never yet succeeded in selling a pound of honey to any person who was not interested in my exhibit. At these fairs I have developt many regular customers for my honey, among people who never before were consumers of our product. Of course, you must have an exhibit that is an exhibit in every sense of the word.

Prof. Cook says in his "Manual of the Apiary:" "Till within the past two years our American honey exhibits have been a disgrace and a hindrance, and they are largely so to-day. A little second-rate honey, sandwicht in with sugar and syrups, and supplemented by a cake or two of black, dirty wax, describes the honey exhibits at most of our fairs to-day. The premiums range from 25 to 50 cents. Our industry demands a separate building," etc. Surely, now, from an apicultural standpoint, he does not give much encouragement to the novice.

When I made my first exhibit I complained of the small premiums offered by the fair ground people. They replied, saying if my exhibit proved a drawing feature they would increase the premiums. They did not erect a "special building," but put me in the Agricultural Building, which proved a good place to sell my "honey lemonade," the past two years. The premiums have been increast as promist, but as yet are of no consequence. Should the interest in the department warrant, I have no doubt but what we may in time get our "Honey Hall."

There is one thing certain, that the kind of displays mentioned by Prof. Cook do not offer much inducement to fair ground officials to put up special buildings, or to offer large premiums. Vanderburgh Co., Ind.

[Concluded next week.]

Sweet Clover for Honey and Forage.

BY JOHN S. SLEETH.

I am living in a district where I am surrounded on all sides with that "obnoxious weed"—sweet clover—as the farmers in this part of the country call it. But that is not all—they lay the blame on me for starting this great nuisance, as some of them call it! Now, I can't see why they should accuse me of the deed more than any one else, only for my keeping bees. They say that I started it for that purpose.

I recollect once getting a small package of seed some years ago, but I don't remember now what I did with it. Perhaps I might have cast it by the wayside somewhere, hoping that it would bring forth its fruit in due season.

Sweet clover is a biennial; it will bloom the second year, then die out that fall, and the seed that drops off that crop will come up the following spring, and so on. If you want a continuous bloom on the same piece of ground every year, the seed should be sown two years in succession.

Now in regard to its not blooming long, as I see by some writers in the American Bee Journal: That depends altogether upon how well you treat it. Keeping it in bloom, and not letting it go to seed, is done by keeping it pastured down, not too close, but enough to keep it in bloom. Last season was very dry here, and our pasture scarce, so that we and our neighbors were obliged to take the public road and the right of way along the railroad, which runs parallel with the above-mentioned road, both of which are heavily set with sweet clover for our stock to pasture on. Of course, we had to herd them to keep them from getting on the track.

The clover commenced blooming about the first of July, and there was plenty, I believe, that could be kept in bloom from the first of July until the frost would kill it down, and it takes pretty hard frosts to do it. I have seen it in full bloom here, along our roadsides, when it was so cold that the bees could not get out to work on it.

I will now give a little experience I had with it the season of 1895, as we had a big crop of it, and we got a big crop of honey from it—for my share I got 1,500 pounds from 22 colonies of bees, while 1896 was one of its off seasons, and we got hardly any honey from its bloom, when the frost came. Why? Just because the stock kept it from seeding, and the bees were busy on it all of the time. They would be so thick on it that the stock could hardly eat, sometimes.

Our stock seemed to relish it very much, and did well on it. For my part, and as far as my experience goes with the plant, I don't believe that there is another plant in existence (and that is saying a good deal) that will produce more honey and forage for stock than the sweet clover.

Mr. A. I. Root, in the November number of the American Bee Journal, says that he has seen it a success on rich, productive land. Now, I don't know about my old native Buckeye State, for I never knew such a plant there in my time, but here in middle Illinois, where I think we have as good a soil as ever the sun shines on, it will grow wherever a seed happens to fall—it will grow to perfection. As for sowing it with grain in the spring, I could not say, as I have had no experience in that line, but if I live and am well, I expect to try it on a small piece of rye. It is a wonderful clover to stand a long drouth, and continued wet weather doesn't seem to affect it in the least. But I don't think that it will produce so much honey then. Livingston Co., Ill.

Bee-Stings—Use of Smoke With Bees.

BY G. M. DOOLITTLE.

Some are adverse to entering into bee-keeping on account of stings. Stings hurt, but the one who is afraid of being hurt will not enter into any avocation in life, for, in any calling, more or less accidents occur. If the sting is not allowed to remain in the flesh to pump poison from the poison-sack into the wound, very little pain will result. Knowing this, and also knowing that a bee must lay hold of the skin with its feet in order to insert its sting, very few serious stings need be received in the course of a year or in a lifetime.

Persons afraid of bees, or subject to great inflammation or swelling from their stings, should use some protection for their face, and if very bad effects result, there may be cases where it might be well to protect the hands. But, as a rule, to protect the hands results in more stings than not to protect them, for gloves of any kind are clumsy and devoid of feeling, so that bees are pincht and killed that otherwise would not be, which the colony resents, thus causing anger to be aroused which otherwise would have remained dormant, and the result proves that the person is stung in different places, through the clothing, or in not fully protected parts, and a vindictiveness aroused which will cause angry bees to dart at anyone who happens near the apiary for days afterward.

Material for a bee-veil may be had of any of our supply dealers, which can be made so as to slip down over the hat, thus protecting the face. If a bee alights on the hands, it is very easy to distinguish, if a little attention is paid to the matter, whether that bee alights there for the purpose of stinging or otherwise. If to sting, you can feel a clutching movement. If not to sting, it settles on the skin the same as a fly would. Now the moment you feel the clutching movement, strike that part of the hand against the clothing somewhere, giving the hand a push downward or a pull upward, thus crushing the the bee before it has a chance to sting, or if not quick enough to avoid the sting, crushing the bee and withdrawing the sting at the same time. In this way, you will, after a little practice, be able to avoid, entirely, four stings out of five intended ones, and take the fifth out before it has hardly reacht through the outer skin, so that only a smarting, similar to a mosquito-bite, will be felt. In no case, ever try to pick a sting out of the flesh with the thumb and finger, for by so doing the poison-sack is first graspt, thus squeezing its contents of poison into the wound.

I work for days, continuously, from morning to night, and sometimes for a whole week, opening hives, putting up bees and queens for shipment, putting on and taking off sections, and fixing up bees generally, without receiving a single sting. And anyone can do the same, if he will only take pains to learn under what conditions bees sting, and to avoid just those conditions.

KIND OF SMOKE AND HOW TO USE IT.

I am frequently askt what kind of smoke is best; or, what kind of smoke do you use to subdue bees with?

When I first commenced keeping bees, I used tobacco smoke, because, at that time, (nearly thirty years ago), the only smokers made for bee-keepers were those to use tobacco. But as I was averse to the use of tobacco, I soon found that smoke from sawdust, cotton rags, or rotten wood, answered every purpose. To know that I was right, I experimented for two years, using tobacco smoke on a part of the apiary, and rotten wood on the other, and the result was, that I have not used tobacco smoke when handling bees for years. My experiments proved that bees managed with tobacco smoke are irritable (they seem to feel as if they had been insulted) for two or three days after being treated to it, and are on the watch for the enemy. Walk into a yard so treated, and first one hits your hat, then another, and then another, and not infrequently the face is hit. It is not safe to take strangers or visitors into your apiary if the bees are managed with tobacco smoke.

To explain how I manage bees: Some friends come in and want to see a queen and the inside of a bee-hive. A bee-veil is handy, and one is furnisht for each. I have some very soft rotted wood, or spongy punk, pickt up on some of my rambles in looking to see what the bees are at work on at different times, which has been and is kept thoroughly dry. With a lighted match this is ignited, which it is always ready to do, for soft, dry punk will take a spark the quickest of anything I know of. This lighted punk is dropt into the bottom of the smoker, and a little more sprinkled on, when the smoker is filled with some beech, maple, or apple wood, which has only partially decayed, or what is termed "hard rot." Of this last I keep a quantity on hand, keeping an eye out for the same when I am in any woodland or old orchard, and storing it away in the loft of the barn, where it is always ready and dry whenever I wish any to use. Having the smoker filled, we are ready to proceed.

Now we walk up to the hive—step around back side, if you please, for we do not wish to disturb them in their labors. It seems strange, but such is the fact, that nine out of ten persons who visit a bee-yard, will persist in getting right in front of a hive, and standing there till a swarm of loaded bees collect behind them and fall tired out on the ground, rather than to stand in any other place. There is nothing that so annoys me and the bees as this very thing, so please remember and don't do so any more, if you are in the habit of doing this.

I next take off the cover, and roll back the bee-quilt, and if I have gone thus far without any sudden jar or accident, no smoke has been used, having only had it on hand in case of necessity. I now commence to take out the frames, show the bees, the brood in its various stages, and as a rule do not have to take out more than two or three frames before the queen is found.

The next operation is to replace the frames, when a little smoke is used to drive off any bees which may be standing on the rabbets to the hive, so they will not get killed by setting the ends of the frames on them. A little smoke is also used to drive the bees off the tops of the frames so that none will be caught under the quilt, especially if we are using the sawdust cushion at this time. But supposing it is not visitors we are entertaining, but work—stern, rapid work—of putting on or taking off sections, what then? Well, as follows:

Step to the front of the hive, and blow a puff or two of smoke into the entrance to stampede the guards which are always ready to rush out when the hive is disturbed, then take hold of the quilt with one hand, and have the nozzle of the smoker handy with the other, when with one steady pull the quilt is peeled off the frames, a puff of smoke following up the lifting of the quilt, so that the bees scamper below the tops of the frames in a jiffy. The sections take the place of the quilt before any bees have time to return.

To take off: Insert the thin edge of a chisel or screw-driver between the section-case and the hive, prying up a little till a crack is made which is too small to allow a bee to come out; then blow a puff or two of smoke in the crack, raise higher, and give another puff; raise to an angle of forty-five degrees; another puff; slip under the escape-board, drop the section-case down, slipping all to its place, instead of lifting the heavy case to the ground and back again, and you have done it without killing any bees, or using much smoke, or getting stung.—Progressive Bee-Keeper.

Too Enthusiastic—The Season.

BY MRS. L. HARRISON.

I heard a bee-keeper express himself as follows, and there is much truth in what he said:

"Some bee-keepers are always cutting their own throats. Let there be one good honey-day, and they will write to the bee-papers, 'Greatest flow of honey ever known; never saw the like!' and dealers, reading this, will jump to the conclusion that honey being so plentiful the price should be low. Perhaps this fellow could truthfully write the day following, 'Not a drop of honey coming in, bees trying to rob.'"

The season so far in this locality has been, hives full to running over with bees, but few swarms issued; a few days, when there was an odor of honey at night, with a low humming, but no two consecutive days of this kind. A day when they would not notice papers dripping with honey, followed by one when they embraced every opportunity to get into the honey-house.

White Clover has been very abundant; the bloom fairly touching, yet only an occasional bee could be seen upon it. It is now drying up.

Sweet Clover—Melilotus alba—is now blooming, and has pre-empted every vacant spot in the city. I saw several acres of it yesterday, in a suburb, covered with bloom, and as high as a horse's back. The yellow variety—Melilotus officinalis—has been blooming since early in May, a waving sea of gold, and still continues. There was only an occasional basswood that bloomed here this year, and honey from this source usually lasts only a day or so.

The Home Market.—This is a field that it will pay all honey-producers to cultivate well. Where a family uses honey, they consume considerable; but there are some who never use it. Those whom we patronize will favor us by taking part pay in honey, and the appetite once created will increase. Do not get sick, unless your doctor eats honey; sweeten your minister's sermons with it; shoe your horse with it; paint your carriage, or mend your harness.

Peoria Co., Ill., July 10.

How We Wintered the Bees, Etc.

BY MRS. L. E. R. LAMBRIGGER.

I believe I promist last fall to be heard from in the spring if our method of wintering proved successful.

That you may all appreciate the situation to its full extent, it will be necessary to describe our location and the kind of weather we had to contend with.

First, then, we live on the Missouri River bottoms, within 30 rods of the river itself, one of the most beautiful, picturesque spots in all Nebraska, and an ideal location for honey-production. In years of drouth, when other localities are burning up, this spot knows no failures; but they say "every rose has its thorn," and this has developt one safe enough.

It rained all the fall, until late November; the ground froze early, and from that time until late March did not thaw sufficient to take in five months of accumulation of rain and snow. Take it all in all, I cannot call to mind another such disagreeable winter. Not that it averaged so extremely cold, as that it was so very wet. Cold enough to keep the surface of the ground a glare of ice for some months; but I suffered less discomfort in the high altitude of the Rocky Mountains with the mercury down to 63° below zero, than I did the past winter here, and it only 15° below. Such is the difference between a wet and a dry cold.

With alternate thawing and freezing there were times when I trembled for the bees out on the summer stands; but I need not have done so, for they came through with colors flying, and with sealed brood present on March 25. We had no loss, and this is how we fixt them:

Our apiary faces east—south winds in Nebraska the reason. We use only the "Alternating Hive," and all are painted. The hives were two feet apart and four inches above the ground, slightly raised at the back. The entrance space was ⅜ of an inch, extending across the hive. Mice are too plentiful here to admit of wider entrance. As it was, we found a little sneak in one of the hives. For the sake of experiment we cut down the brood-chambers on part of the hives to two, while three were left on the balance. Each colony was allowed to retain 50 pounds of honey. Those having two chambers were provided with a super which was packt with straw only. Those with three chambers had either a burlap or seamless sack folded and laid smoothly over the top chamber, after which the hive covers were put snugly on; then all the hives were wrapt on the outside with sacks well tied on, after which the entire lot was bankt in (all but the fronts) with about four feet of fresh, clean hay. This packing had not been removed on May 3, tho it was shortly afterward, as we were about to divide them.

Those colonies having three chambers had a little mold in the bottom, those with straw cushions none; so, all things considered, we think we are in favor of two chambers and straw cushions. We shall have the hives further from the ground, too. Our bees were bringing in both honey and pollen early in April.

SWEET CLOVER STANDING THE WET.

Before closing I wish to speak of sweet clover; the general verdict seems to be, "It can't stand wet feet." Not only has its *feet* been wet all winter, standing in ice water, and frozen into the ice, but the past spring's overflow of the Missouri river covered it head and ears, *and yet*, while it is true some was killed, we have a fine stand, which bloomed about June 1. And as to the seed which we scattered in grass land last fall, why, as Col. Sellers used to say, "There's millions in it" for the bee-keeper. Sweet clover could not be subjected to a severer test than it received here the last winter and spring. We expected it was ruined, and were happily disappointed.

Knox Co., Nebr.

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Illinois Bee-Association Members' Reports.

The following reports were sent in, in reply to these questions;

1. How many colonies have you?
2. What are the prospects for a honey crop?
3. How much honey gathered to date?
5. Is the honey gathered No. 1 or not?

C. Becker, Sangamon Co., June 26—1. 40 in the spring, and 80 now. 2. Fair after the rain; too cold in the forepart of the season, and then too dry. 3. 1500 lbs. of extracted, and 500 lbs. of comb honey. 4. No. 1 white clover.

L. Sylvester, Kane Co., June 28—1. 17 from 40 last fall. 2. Good, if we could have warm nights. 3. Not any, but have third supers on 4. 4. Honey all No. 1 white clover.

M. M. Baldridge, Kane Co., June 28—1. 20. 2. Good. 3. Don't know. 4. Yes.

J. A. Green, Lasalle Co., June 28—1. 125. 2. Good. White clover is yielding well; good prospect for basswood and sweet clover. 3. About 4000 lbs. 4. No. 1. Mostly white clover.

E. F. Schaper, Porter Co., Ind., June 28—1. About 50 or 60, and some 10 or 12 nuclei. 2. Not good so far; too wet and cold. 3. None.

James Poindexter, McLean Co., June 28—1. About 160. 2. Excellent. 3. From 2000 to 5000 lbs.; some supers full, but none taken off yet. 4. All No. 1 clover.

C. E. Mead, Cook Co., June 28—1. 6. 2. Big. White and sweet clover, thistle and basswood. 3. 60 lbs. since the 26th. Northeast winds to 26th; no white clover before. 4. No. 1 white clover. Lake winds stop the honey-flow here.

J. C. Wheeler, Kendall Co., June 28—1. 540. 2. Fair; linden not out. 3. 3 tons of extracted. 4. One-half clover and one-half amber raspberry.

W. B. Blume, Cook Co., June 28—1. 44 spring count; 64 now. 2. Very good, if the weather is favorable. 3. About 250 lbs. 4. Mixt grades.

A. P. Raught, Lake Co., June 28—1. 10. Middling. 3. None. 4. No. 1.

G. W. Williams, Brown Co., June 29—1. 26. 2. Very good if the weather continues favorable. 3. 600 lbs. off, 200 or 300 lbs. ready to take off. 4. First was badly mixt with honey-dew; bees are storing honey well now.

A. Y. Baldwin, Dekalb Co., June 29—1. 83. 2. Fair thus far. 3. 25 lbs. average. 4. No. 1 to date; white clover.

Stoughton Cooley, Cook Co., July 1—1. 7 now; 5 spring count. 2. Good so far as I can judge. 3. None.

W. S. Chaney, Jefferson Co., June 28—1. 65 in Illinois and 70 in Missouri. 2. The white clover yield has been fair; prospect good for fall honey. 3. About 500 lbs. of comb honey. 4. All white clover to date. No honey-dew.

L. Kreutzinger, Cook Co., July 30—1. 100. 2. Fair. 3. None taken off. 4. No. 1 comb honey.

W. J. Finch, Macoupin Co., June 29—1. 15. 2. Very good. 3. 200 lbs. 4. Honey is very fine.

Geo. F. Robbins, Sangamon Co., June 30—1. About 45. 2. Good. 3. Extracted 400 lbs. of comb; perhaps 300 lbs. finisht. 4. Yes.

W. C. Lyman, Dupage Co., June 30—1. 72. 2. Good. 3. But little. 4. No. 1 white clover.

G. R. McCartney, Winnebago Co., July 2—1. 12. 2. The prospect is good. 3. Hives are full; none taken off yet. 4. It ought to be No. 1.

B. Kennedy, Winnebago Co., July 1—1. 40. 2. Good. 3. 1000 lbs. 4. No. 1.

S. N. Black, Adams Co., July 1—1. 20. 2. Good for fall crop, if there is any. 3. No surplus.

C. Schrier, Will Co., July 5—1. 18. 2. Good. 3. 600 lbs. 4. Yes, No. 1.

E. West, Will Co., May 29—1. Bees badly diseased. 2. No honey, but the season is good.

H. O. Miller, Kankakee Co., July 5—1. 3. 2. Extra good. 3. 20 lbs. 4. No. 1.

Roderick McKenzie, Lake Co., Ind., July 5—1. 70. 2. It is a fall crop we get; the prospect is favorable. 3. None in supers, but some in brood-nest. 4. Probably not No. 1, as we have little fruit-bloom and clover is scarce.

S. H. Herrick, Winnebago Co., July 12—1. 16, spring count; 29 now. 2. Never were better. 3. 200 lbs., and a lot more ready to be taken off. 4. Yes; No. 1 pure white clover. From present outlook I will get 1,600 lbs.

Dr. C. C. Miller, McHenry Co., July 13—About 260. 2. Good. 3. 2712, 4¼ sections. 4. It is very fine.

James A. Stone, Sangamon Co., June 24—1. 35, spring count. 2. Extra good. White clover is very abundant. 3. About 1,000 lbs. 4. No. 1 white clover.

Don't Smash Honey Prices—Good Advice.

There is more or less a prevailing opinion that bees work for nothing and board themselves, and there's some basis for it, but it does not follow from that that honey should not bring a fair price in the market. A farmer has two or three colonies of bees, and the season having been good, he gets more surplus then he thinks he needs in his own family, altho his family would eat every ounce of it in the course of the year if they had the chance, and be the healthier for it. He takes it to the grocer and asks for a bid on it. The grocer says:

"Well, this has been a good bee-year, and honey is pretty low, but that's a nice article of yours, and for such as that I guess I can afford to allow you 10 cents in trade."

The grocer knows very well it is worth from two to four cents a pound more than ten cents, but he also knows from past experience that the farmer will take just about what is offered. The farmer goes home congratulating himself, and says to his wife:

"Not a bad thing to have a few bees; there's $2.50 just as good as if I'd pickt up that much on the road, for the little time spent on the bees don't count for anything."

The poor woman says nothing, but sighs to herself as she thinks how much help that 25 pounds of honey would have been to her in furnishing her table; how nice it would have been for company, and how the children would have enjoyed it, and somehow she can't clearly see why they could not afford it all the more because it was low in price.

That farmer is foolish to care so little for the pleasure of his wife and the health of his children, and additionally foolish to sell the honey for less than a fair price. If he had found a bag of oats on the road, he would hardly sell it for less than he would a bag of his own raising; the fact of its costing him nothing not counting or figuring on its value.

Not only has he done a foolish thing; he has done a wrong thing as well, for a short time afterward a man comes in who makes the production of honey a principal part of his business, and when he asks a fair price for his honey he is met with the reply:

"Oh, I can't afford any such price. I can get all I want for 10 cents a pound. Got a nice lot last week at that price."

The bee-keeper then goes to the grocer across the way, who says:

"It does seem as if good honey ought to bring more, but the fact is I had to come down on the price to meet my competitor across the way. I bought a lot at 12 cents, and was selling it out at 15, but my customers would come in and say they could buy the same thing across the way for 12, so there was nothing to do but for me to come down."

So the bee-keeper who has workt hard for his crop, suffering a failure for the two previous years, is practically defrauded out of one-sixth of his recompense by the man who sells for the first offer that is made—because bees work for nothing and board themselves!

See that your honey is put up in good shape to go on the market, find out something as to its real value, then insist on getting what it is worth.—Iowa Homestead.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Requeening—Queens from the South and North.

1. I have some hives in my apiary in which the combs are built so crooked that I cannot remove the frames. As I wish to requeen the whole apiary, I would like to know the best way to find the queens in such hives. I have been told to open the top of hive and smoke at the entrance and drive the bees on top of the frames so that I could find the queen running on top of the bees. Is this plan practicable?

2. Would it be advisable to requeen in July after basswood flow is over?

3. Would Italian queens shipt from the South do well in this climate? CENTRAL NEW YORK.

ANSWERS.—1. The plan you suggest may work. Perhaps you may succeed better if you leave the hive covered and smoke at the entrance and pound on the hive. Then when you lift off the cover you may find the queen among the bees on it. If you fail otherwise, you can drum the bees entirely out of the hive.

2. Yes, you can requeen almost any time, but it will be done more easily before the harvest is entirely over.

3. Yes, there seems to be no particular difference between bees reared in the South and the North.

Swarming-Fever—Dividing Colonies.

1. I have a strong colony that seems to have contracted a fatal case of swarming-fever. They have swarmed two and three times a day for nearly a week. They were hived first on full sheets of foundation, and later on starters, but acted the same in both cases. Shading did not seem to help the matter. What do you think is the trouble, and what treatment would you advise should such a case occur again?

2. I have tried dividing according to the methods advised in the books—*i. e.*, taking the queens and part of the brood to a new stand, and scarcely enough bees remained on the new stand to make a decent nucleus. How do you manage it? MINNESOTA.

ANSWERS.—1. In spite of shading, heat may be at the bottom of the trouble. Something depends upon the make-up of the hive, some hives being so constructed that it is difficult to give a colony air enough. If you have difficulty of the same kind again, sprinkle the hive with cold water after hiving, raise the hive a half inch or so by putting blocks under the corners, and for a day or two leave the bees partly uncovered by raising the cover a little or leave it slid to one side. As an additional precaution, and one that is by many considered an infallible preventive of swarming, give the swarm a comb of brood.

2. Bear in mind that all field-bees of an active colony are likely to return to the old stand, and govern yourself accordingly. If you put the queen on a new stand, supposing you want to divide the colony about evenly, take half the combs with adhering bees and put on the new stand, then brush off into the new hive the bees of one or two frames more, perhaps from two or three. Brushing off is better than shaking off, as in shaking you will leave some bees on the comb, the very ones you want to get, for they are the youngest, and will stay anywhere.

But I doubt the advisability of putting the queen on a new stand. It is better to have the bulk of the field-bees with her, and these will always adhere to the old location. Various plans may be used to have the bees apportioned to your liking. Set the hive on a new stand, then put the queen with two combs and adhering bees on the old stand, and you will be sure of having plenty of young bees on the new stand. Then in a day or two, after some of the flying bees have markt the new location, return part of the frames to the queen.

If you are anxious that the queen-cells reared shall be of the best quality, and you should be anxious for this, it may be well to follow another plan. Take the queen with two combs and adhering bees, and put on a new stand. That will leave nearly the whole strength on the old stand, and you may rely on their starting better queen-cells than would a weak nucleus, especially if cool weather should come. After five or six days the feeding of the young queens will be over, and you can then let the hives swap places, letting the queen have the old stand, and if you like you can give her some of the combs from the other hive.

Honey that Seems to be "Working."

I have a barrel (50 gallons) of honey that is "working." It doesn't seem to be sour, but a thick froth works to the bung, which I have kept loose. I take a spoon and skim it off, and it looks clean and nice. I fill it up, and the next day I have the same thing to do over. I have a small house in the apiary, enclosed with gauze wire, where I extract, and I presume the rain has blown in. I have a 20-gallon can with a faucet, in which I keep honey at least a week before barreling, always drawing from the bottom, and never drain, so the water and all impurities are on tup. Would just a little water sour it? Will it clear itself if I continue to skim. If not, what is best to be done with it? If I make it into vinegar, where would I be likely to find sale for so much? LOUISIANA.

ANSWER.—The little pollen that is floating in the honey acts as yeast, and a little thin fermentation sets in. If you will just let it alone and give chance for evaporation, it will probably right itself in a little while. Evaporation takes place more rapidly in an open vessel than in a barrel. It would probably be better not to add fresh honey from time to time as you have been doing.

It would be difficult to dispose of large quantities of honey-vinegar except in the large markets, yet undoubtedly a fair market could be gradually workt up almost anywhere by a little persistent effort.

Straightening Crooked Combs.

In the spring I bought four colonies in Langstroth hives in which the brood-combs are so crooked as to make it impossible to lift one out. For instance, in one of them the comb starting at the top of frame one ends with the bottom of frame five. I want to get these colonies upon straight comb before winter. I have eight other colonies in Langstroth hives with straight combs in good condition. The 12 hives are all the same size, and frames, if built straight, would be interchangeable. Swarms have issued from the four colonies first mentioned. What would you advise? Bees usually fly here until January, when rain does not prevent, and some white clover is in blossom until that time. TACOMA.

ANSWER.—It is largely a matter of mechanical genius for each particular case. Where the case is as bad as you mention, one comb being attacht to five frames, it's a good deal like transferring from a box-hive, and yet with a little patience you may get along all right. With a long knife cut down at the sides of the hives, freeing all the combs from their attachment to the sides. Then turn the hive upside down and dump out the whole business. Commence at the side where the combs are straight, or where they are most nearly straight, if there is any difference, and cut the comb free from the frame to which it has the least attachment, bend it into place and tie there with common wrapping-twine. If some of the combs are too badly out of line, there is nothing left but for you to cut them out entirely and fasten in the frames. You may find some advantage in exchanging some of these combs with colonies that have combs all straight, putting one of the doctored combs between two straight ones.

Drones with Peculiar Markings.

I started last spring with 23 colonies—7 hybrids, 1 Carniolan and 15 Italians. Among the mismated are two colonies with queens of last year's rearing. They are bright yellow queens, of the golden Italian variety. These queens produce a few drones of peculiar markings, some of them are of bright, solid yellow, or rather of a reddish cast, with a large yellow crescent on the thorax, and some of them are of a dark purple, which seems to be somewhat between the color of a red clover blossom and an ordinary black drone. They are not mottled with black, but of an even color. Could the mating of the queens thus affect the drone offspring? or what causes the sporting in their color? IOWA.

ANSWER.—Drones seem to be very freaky as to their markings. Considerable variations occur with no apparent reason. Red-headed drones are quite common. It is generally considered that the drone progeny of a queen is not affected by her mating, and for all practical purposes this is probably true. Still there may be some little effect upon the drone offspring, so little as not to be perceptible ordinarily, but showing itself quite distinctly in occasional cases. A white woman giving birth to a mulatto with a negro father, will afterward produce pure white children to a white husband, and yet there have been cases in which subsequent births to a white husband have distinctly shown negro blood. It is possible that the queens themselves may not have been entirely pure.

The Buffalo Convention Notice has been sent us by Secretary Mason, and reads as follows:

STA. B, TOLEDO, Ohio, July 5, 1897.

MR. EDITOR:—Will you please say in the next issue of the American Bee Journal that the next annual convention of the United States Bee-Keepers' Union will be held in the Main Hall of Caton's Business College, corner of Main and Huron Streets, in Buffalo, N. Y., commencing at 10 o'clock, a.m., of Aug. 24 next, and closing on the afternoon of the 26th?

Papers are to be read by W. Z. Hutchinson, R. F. Holtermann, E. Whitcomb, Hon. R. L. Taylor, Mrs. L. Harrison, R. C. Aikin, G. M. Doolittle, Dr. J. P. H. Brown, Hon. Eugene Secor, Geo. W. Brodbeck, M. B. Holmes, A. E. Manum, E. Kretchmer and P. H. Elwood; to which will be added the President's Address, and perhaps the General Manager and the Secretary may have something of interest to present.

The programs are now printed and in the hands of the Secretary. There are six bee-keepers' songs, with music, in the program, and abundance of time is allotted to the discussion of all papers, and for the asking and answering of questions.

Any one not a member of the Union can have a program sent them by mail on receipt of 5 cents in postage stamps by the Secretary.

Several of our well known bee-keepers, such as A. I. Root, Dr. Miller, S. T. Pettit and others who are not on the program, will be present to help make the convention interesting and instructive.

It is probable that suggestions will be made at this convention in the line of so amending the constitution of the Union as to remove its objectionable features and add such other provisions as may seem desirable, and suggestions in this line by those not able to be at the convention can be sent to the Secretary, to be brought before it. Some suggestions have already been received by the Secretary, and others have been made in the bee-papers.

Those going to the convention should buy round-trip tickets to the Grand Army of the Republic encampment (not to the United States Bee-Keepers' convention), which meets at Buffalo during the last week of August. The G. A. R. have secured a rate of one cent a mile each way in the territory of the Central Passenger Committee, which is included by Toronto, Canada, thence on a line to Port Huron, Mich., all of the southern peninsula of Michigan; Chicago, Peoria and Quincy, Ill., St. Louis, Mo., Louisville, Ky., and Pittsburg, Pa. The Western Passenger Association and the Trunk Line Association make a rate of one fare for the round-trip in their territory to places in the Central Passenger Association, from which points the fare will be one cent a mile each way, but tickets must be purchast to Buffalo from the starting point. Enquire of your ticket or station agent in all territory outside of the above-named for rates and the time the tickets are good for, for I have been unable to learn the rates in such territory, but presume it will be the same as that of the Western Passenger and the Trunk Line Association; but be sure to inquire of your ticket agent as above suggested.

In the Central Passenger and Trunk Line territory tickets will be good going on the 21st, 22nd and 23rd, and if vised at Buffalo will be good, returning, for 30 days.

Mr. O. L. Hershiser, of Buffalo, has charge of arrangements at Buffalo, and will attend to the matter of hotel rates. He writes: "I purpose obtaining accommodations in private families for all bee-keepers who prefer such to hotels." Members of the Union can learn in regard to hotel rates by applying to the Secretary at the place of meeting. If known in time, hotel rates will be given in the bee-periodicals.

A. B. MASON, *Sec.*

Knowing the Honey-Plants.—In the June California Cultivator, Mr. N. Levering has this to say about bee-keepers studying the plants that yield honey:

> The leading feature of interest and ultimate success in apiculture is a correct and thorough knowledge of the nature and habits of the bee. Next, a knowledge of the various plants upon which they work and render an equivalent for the labor bestowed. The nectar is the bee's reward; it is the sweet and tempting bait that lurks in the bloom that entices or causes the insect to yield and partake. This constitutes the philosophy of the relation between flowers and bees and their inseparable connection. The study of the honey or nectar-producing family of plants should engage the attention of every apiarist; likewise the cultivation of the same. He who would succeed in any industry or enterprise should be thoroughly imbued with all its parts and characteristics. Observation and the power of application are important requisites to success. Bee-keepers should note the forage, especially that which bees give the preference, in order to ascertain the best nectar-producing plants, as well as the grade and quality of honey.
>
> The black or ball sage is the leading honey-plant in Southern California. It has been in bloom for the past month, and in our locality it is rarely visited by the bee, yet bees are storing honey of an excellent quality, but from what plant no one seems to know, as bees appear to fly a long distance. We have observed them working the hoarhound, showing a decided preference for it, continuing their visits from early morn until dewy eve, and if the conditions of the weather are favorable with heavy dews, a bountiful flow is secured. Their appearance while working on the hoarhound is quite similar to that when working on the sage, and are to be found about the hive in all conditions of fatigue. This plant should command the attention of honey-producers, and is one of easy cultivation, adapted to almost any moist land.

Encyclopedia for Beeswax.—Some time ago we offered a splendid work of eight large volumes, called "The New Standard American Encyclopedia," having nearly 4,000 pages, and over 300 colored maps, charts, and diagrams. Size of volume, 2 inches thick, 8½ wide, and 11½ long. As per that offer, last publisht on page 186, the eight volumes were offered by freight for only $19 cash. We can furnish a set or two at that price, bound in half morroco; or will exchange a set for 75 pounds of yellow beeswax, delivered at our office. You would be more than satisfied with the Encyclopedia, and a set of such books ought to be in every family for reference.

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

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Next Annual Meeting at Buffalo, N. Y., Aug. 24–26, 1897.

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Editorial Comments.

The Buffalo Convention—Aug. 24, 25 and 26—is expected by many to be the largest meeting of bee keepers yet held in this country. We hope it will be. Mr. O. L. Hershiser, who is right on the ground, is doing his utmost to insure a successful gathering. From a letter he wrote us, we take the following paragraphs, as they will be of interest to all our readers:

> MY DEAR MR. YORK:—It will be possible to find good places for all our convention people in nice, private families. I will see to this matter.
>
> If you are a wheel-rider you ought to bring your wheel. There are some pretty rides in Buffalo that could be taken in the early morn, before convention hours.
>
> I expect a large attendance at this convention. There is every reason for this anticipation. The G. A. R. encampment will be a sight that many have never seen. Buffalo is a cool, delightful city, that is becoming noted for its conventions. It is an interesting city in which to spend a few days. Niagara Falls is but a few miles distant, where the unlimited power of the ceaseless-flowing river is being utilized. Lastly, bee-keepers have had a good flow of honey from white clover, and of course they are enthusiastic, and will want to learn every new thing about the bees.
>
> Do you not think it would be an excellent thing to publish the program in the bee-papers? It is an excellent one. The subjects are very interesting, embodying the burning apicultural questions of the hour. After knowing what the program contains, and who the gentlemen (and lady) are who will handle the various questions before the convention, the query with apiarists will be, "Can I afford not to be present?" instead of, "Can I afford to go?"
>
> Every wise bee-keeper who lives within a reasonable distance from Buffalo will be sure to be present.
>
> Yours very truly, ORREL L. HERSHISER.

There is no doubt Mr. Hershiser will see that all attending bee-keepers are well taken care of. He will have his hands full, to be sure, but then he's one of those big, strong, jolly-hearted bee-keepers that just enjoys seeing everybody else happy.

Yes, it might be well to publish the program in full, but when it can be had for only 5 cents, including the six bee-songs, which it contains, everybody will send for a copy, anyway, and thus make it unnecessary to put it in the papers. Send to Dr. A. B. Mason, the Secretary—Sta. B, Toledo, Ohio—for a copy. Or, better yet, send your one dollar membership fee, and get a free copy of the program with your receipt.

If it is more convenient, just send your dollar to the Bee Journal office, and we will see that you get the program and the receipt. (See page 455 for information regarding convention, railroad rates, etc.)

◆

A Cheap Bee-Brush is thus described in The Bee-Master, an English publication:

> A brush of some kind is mostly a necessity when manipulating bees, but, whatever it is made of, no animal fibre should be in its composition, as nothing seems to irritate bees more. Always use one made of vegetable substance. The one I always use, and is the best of any I have ever tried, is simply a bunch of green grass, tied at one end with a piece of string, and then trimmed, after first pulling out the hard stalks. It can be used green or dried, tho I prefer to use new ones every time. This is the best as well as the cheapest I know of.

◆

Bee-Keeping Requires Attention.—The W. T. Falconer Mfg. Co., publishers of the American Bee-Keeper, have the following editorial paragraph in their last number:

> Every mail brings to us news of the excellent honey-flow that is being gathered in almost every section of the country. Not for several years have such reports been so numerous, nor have our orders for supplies been so large and numerous. Two or three such seasons would make bee-keeping much more popular, and increase the number of bee-keepers many fold. There is no industry that pays better for the amount of labor and expense required than that of bee-keeping, but there are too many who seem to think bees require no attention whatever to be profitable, and such bee-keepers, in consequence of their negligence to give their colonies proper attention, receive no profit from them. Like any other successful business, bee-keeping requires careful and intelligent attention.

◆

Honey and Its Uses is the title of a small pamphlet issued in England by Rev. Gerard W. Bancks. Gleanings publishes the following excellent quotation from it, and we wish to suggest that it would be a wise thing if bee-keepers everywhere would request their local newspaper editors to copy it for the benefit of their readers:

> Apart from the consideration of the many other valuable properties claimed for honey, the following facts, which seem well authenticated, must certainly go far to recommend its use as an article of food:
>
> 1. The sugar of honey, being in the most suitable form for assimilation, requires hardly any digestion. It is in a condition to enter at once into the system.
>
> 2. It is, in a usual way, not liable to occasion any disorder of the system, and may therefore generally be used by those with whom ordinary sugar is found to disagree.
>
> 3. The grape sugar of honey does not cause decay of the teeth as cane sugar does.
>
> These statements, of course, have reference only to honey that is absolutely *pure.* Erroneous opinions, and much mistaken prejudice, have unfortunately arisen with regard to the use of honey, owing to the unpleasant effects upon many persons of the various compounds, consisting chiefly of glucose made from potatoes or rice, and sulphuric acid, which of late years have been in such large quantities sold as a substitute for pure honey. It is of the greatest importance, if its beneficial effects are to be enjoyed, that the honey consumed be pure.
>
> Till comparatively recent times honey was the chief sweetening agent in use. After the introduction of cane sugar, however, the use of honey in this and other countries largely

declined. But there is no doubt that of late years it has been more and more realized that pure honey does possess qualities which it is impossible to replace. There has been a larger and ever increasing demand for it, till there seems every prospect of its coming again into general use in every household. Thousands of tons of honey are now annually consumed in this country; while in North America alone, it is estimated that more than a hundred million pounds are produced every year.

But it is not only as a palatable and nourishing food that honey has again come to be so highly appreciated. It is now pretty generally acknowledged to be a really valuable medicine. And when we bear in mind that the nectar gathered by the bee is a secretion in which we may expect to find the essential virtues of the plant from which it is obtained, that there is more or less pollen always present, and that, when converted into honey, it contains, in addition, a certain amount of formic acid, we can easily account for its wonderful medicinal properties.

Honey is especially recommended as likely to be beneficial in cases of dyspepsia, rheumatism, asthma, hoarseness, shortness of breath, and all affections of the chest. Consumptive people are known to have derived great benefit from its continued use, and it is said to have been recently often used as a substitute for cod-liver oil, with very satisfactory results.

In bronchitis great relief may be obtained by taking a small quantity at frequent intervals. The regular use of it is said to aid digestion, and to strengthen the nerves. As a gentle laxative, and purifier of the blood, no better medicine can be taken; while its peculiar acid property has caused it to be generally recognized as a valuable medicine in case of sore throat. Indeed, for coughs, colds, and all affections of the throat, it is universally acknowledged to be the best of remedies.

The Weekly Budget.

Mr. S. H. Clark, of Clinton Co., Iowa, says: "I can't get along without the American Bee Journal. It is the best helper I have."

Mr. A. F. Randall, of Fayette Co., Iowa, writing July 13, said: "This is the best honey-year for the last 15 years on white clover."

Hon. Eugene Secor—The General Manager of the United States Bee-Keepers' Union—expects to be present at the Buffalo convention next month, Providence permitting.

Mr. D. W. Heise, of Ontario, Canada, wrote us July 12:

"I am making arrangements to be at the Buffalo convention. The bees have done well thus far, but the harvest is fast drawing to a close."

Mr. N. E. France, of Wisconsin, writing us July 13, said that the honey harvest there was about over, with 41,000 pounds of honey taken up to that date. Who can beat that, outside of California, or even inside of that State?

Mr. M. H. Hunt—a bee-supply dealer in Wayne Co., Mich., and one of our advertisers—wrote us July 12:

"I am off for a vacation. Never had better business than this season. Great honey crop here."

Mr. W. C. R. Kemp, of Orange Co., Ind., was for years a reader of the Bee Journal, then, like some others, he stopt reading it. But July 12, he wrote us as follows:

"I have been longing to see a copy of the dear old American Bee Journal once more, and will ask you to send me one for 'old acquaintance sake.' Many things have happened since we parted—some good, some bad, some indifferent. Among the bad things is the loss by fire of all my stock of merchandise (stoves and tinware), so that I am out of business, and not able to resume. In consequence of the poor honey seasons for the last five years, my bees were neglected, and this spring found me with but two colonies. O that I had 30! for then half my loss by fire would have been made back. Such a honey season I have never seen before! The earth is a carpet of white clover, and the bees are revelling in honey. From my two colonies I have taken 150 pounds of fine comb honey, and 50 pounds of extracted, with an increase of three colonies. I will probably get 20 or 25 pounds more. The season is now closing.

"I am anxious to know what other bee-keepers are doing, and to renew their acquaintance, and by next season I may resume the manufacture of extractors and smokers."

We hope Mr. Kemp may speedily recover from his loss, and also be found in the ranks of bee-keepers again.

Mr. N. Levering, in the California Cultivator, says the output of honey in Orange county will be large this year. Mr. J. A. Oderlin, with 250 colonies, had extracted 10 tons by May 1. Two years ago the output for the season was 23 tons. It is very fine black sage honey.

Mr. W. Bishop, of Otero Co., Colo., when sending in a new subscriber to the Bee Journal July 14, and also his membership fee for the New Union, added this:

"One number of the American Bee Journal is worth to me what a whole year's subscription costs. Bees are doing fine. We have good prospects for a fine honey-flow."

Mr. Thos. G. Newman, of San Francisco, Calif.—the General Manager of the National Bee-Keepers' Union—wrote us July 10, that there was some prospect of his being in Chicago on business in August, and that he might perhaps attend the Buffalo convention. He reports the weather in San Francisco as lovely—thermometer indicating 72°, and not 100° as here in Chicago.

By the way, we noticed in the June Bee-Keepers' Review some correspondence from Dr. Mason and Dr. Miller, referring to Mr. Newman as Manager of the Old Union, which called out this editorial paragraph by Mr. Hutchinson:

"Thos. G. Newman I believe to be an honest man. I say this because there is an item in Dr. Mason's article that might be construed into an insinuation to the contrary. Then there was an item not long ago in the American Bee Journal that might be lookt at in this same light. I do think that it would have been better if Mr. Newman had given an itemized account of the expenses, and, better still, if there had been an auditing committee, but, altho these are lacking, I see no grounds for doubting the truthfulness of the amount reported as expended. Mr. Newman has been very severely criticised, and I think some of it is deserved, but let us not resort to such criticism that it may be regarded as an insinuation against his honor, when there is no greater foundation than that his report does not give an *itemized* account of the expenses of the last year."

We were quite surprised when we read the above paragraph, for we were not aware that there had been anything in the American Bee Journal that reflected upon Mr. Newman's honesty. Certainly *we* have not questioned it at all. If some have *misconstrued* our suggestion that an itemized account of the annual expenditures of the Old Union be publisht, we can't help that. It is every member's *right* to know how the funds of a society to which he may belong are expended; and we insist that such request *does not* carry with it any insinuation that the treasurer is dishonest. We surely would not thus accuse Mr. Newman, for we have known him long enough to know that he is an honest man. The only instance, we believe, wherein we claimed Mr. Newman did wrong, was in publishing his criticism of the New Constitution *in* his Annual Report; and, to our mind, there is no question about that at all. It was not legitimately a part of the Report, and so should have been omitted therefrom.

We must insist that the American Bee Journal has *not* even insinuated that Mr. Newman is not honest, tho in his article on page 290, Mr. Newman does a good deal more than to simply make "insinuations" against *our* honor. But we can stand that if he can.

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General Items.

Honey Plentiful.

Honey is very plentiful, but it has been quite rainy the last two weeks.

MANOAH STEVES.

British Columbia, July 8.

Getting Honey Freely.

The bees are getting honey quite freely now. If we have showers to keep the clover in bloom, we may get quite a good crop yet.

J. I. CLARK.

Addison Co., Vt., July 12.

Bees Doing Fine.

Bees are doing fine. They are nearly done swarming, and have gone to work. I have some working in the fourth case. I must extract some next week. I now have about 260 colonies.

N. STAININGER.

Cedar Co., Iowa, June 30.

Good Prospects.

The bees are in splendid condition here at present. The prospects are good for a large honey-flow. We have honey coming in here from the time the willow blooms in spring until the first of September, nearly all the time.

E. E. MOYER.

Columbia Co., Oreg., July 5.

A Reckless Statement.

I notice on page 398, a wail from Clark Co., Wash. The writer says: "We often have rain that will keep on raining night and day for several months at a time, etc." It is just such reckless statements that keep away good people from coming to a splendid country and fine climate. The truth is, he never saw a week of *continuous* rain in the State.

Pierce Co., Wash. GEO. W. PRATER.

Bees Never Did as Well.

I got about 300 pounds of surplus honey last fall, but the bees are doing remarkably well this summer, as I got 200 pounds from two colonies that I run for extracted honey, in about three weeks. This is the best my bees ever did. I have 21 colonies now, and they are all doing very well except two that swarmed twice.

MICHAEL LARINAN.

Rock Island Co., Ill. July 8.

White Clover—Yellow Sweet Clover.

Only a sample of white clover honey has arrived. The bloom is abundant, but it is little noticed by bees. It appears to me, that a difference in soil has something to do with the secretion of nectar by this plant. An observing bee-keeper said to the writer lately, that he noticed bees very thickly working on a small plot of white clover, while there was not one to be seen on a large area of this plant growing near. Where the bees were working, the soil had been thrown up, making it higher than the surrounding soil. Only a few miles distant, reports come of honey and swarms. Thus far, from 60 colonies, only four swarms have issued. Hives are full to

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DR. GEO. LACKE, Newburgh, Ind.

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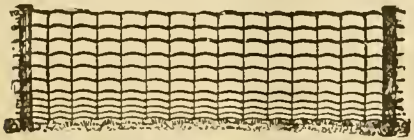

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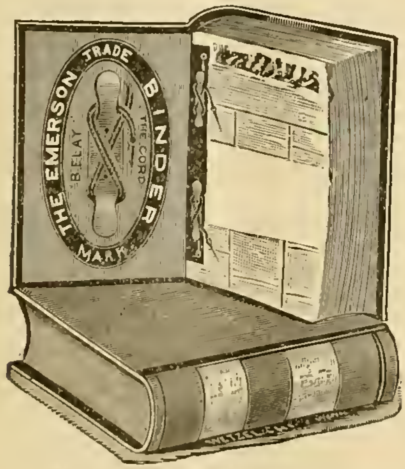

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overflowing with bees, but prefer a crowded home to empty pantries.

On page 596, J. L. Gandy, of Nebraska, writes, dated June 13: "The yellow sweet clover has now been out four weeks, and the white is not out yet." It is now June 25, and the white sweet clover only shows a very few white racemes, and the plant is very luxuriant, and abundant in all parts of the city, on the bluffs, ravines and gutters. The yellow has been in bloom since early in May—a waving field of golden hue. The bloom is from the ground upward, and very thick, showing very little green. It is not half as tall as the white, and the stalks are very small.

Peoria Co., Ill. MRS. L. HARRISON.

Good Prospects for Fall Honey.

The bee-fever broke out here in a mild form, caused by an excellent honey-flow last fall. Bees wintered well, and were already strong in bees and honey when spring came; tho it was cool enough through maple and fruit bloom, they got almost the full benefit of it. My 1st swarm came out April 11; 2nd swarm, April 22; 3rd swarm, May 2; 4th, May 3; and then from 1 to 8 per day until I was tired of it. The prospect for fall honey is good. W. A. MCGEE.

Bates Co., Mo., July 7.

Will Bee-Keeping Pay?

This is a question that often comes to my mind. The love of honey led me to engage in bee-keeping years ago, and I have become so interested in it that I intend to keep bees as long as I am able to take care of them. I am in the insurance business, and am also Justice of the Peace, in our city. If a messenger is sent to my office to tell me that my bees are swarming, I drop everything and go home to attend to them. The work has been trying to me this summer, as I have been suffering with lumbago and was so badly crippled that I could hardly walk with a cane, and the lifting of the hives and bending over them was poor medicine, but I worried through it.

I started in with 28 colonies, and increast to 41 by natural swarming. This is the best honey season we have had for 12 years; still it will not be a full crop as the spring was backward and cold, and the bees were not ready for the honey-flow when it came. I did not have a second swarm; never had but two in my life, and I have been keeping bees for 18 years, and at one time had 80 colonies. I manage them in this way: I take the colony that throws out the swarm, take out two brood frames, put in a new hive, fill up with starters in the sections, carry the balance of the young bees and old hive to a new stand, and throw the new swarm and the field-workers all into one hive; it makes a good, strong colony, and in less than three days they are at work in the sections. The old colony is too weak to swarm. In that way I have taken 27 pounds of honey from a new swarm.

This year the swarming was done the last of May and the first of June. I never could understand why some people prefer a strain of bees that won't swarm. To prove that those that swarm are the best I will give my experience: I had 28 colonies spring count, had 13 new swarms and have the sections all off of them; so I have 26 colonies for fall be-

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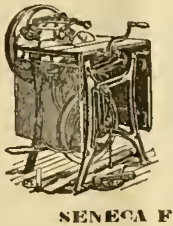

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22Atf CHAS. MONDENG, Mgr.

Mention the American Bee Journal.

sides the 15 that did not swarm. I am now taking off their honey. Some of them stored 50 pounds, but the most of them only 27 pounds. Some of the colonies that swarmed had sections partly filled, and when that was the case the sections were given to the new swarm. This has been a great year for swarming; a great many of the farmers have bees, and they report to me that their bees do nothing but swarm. Some report as high as four swarms per colony.

In conclusion, let me say a few words on the color and strain of bees: In my younger days I was a contractor, brick layer, and plasterer, and I never had a man to work for me that I did not learn something from, and that is the way with sending off for queens; if they do not prove to be as good honey-gatherers as those I have at home, it always makes an improvement on them; I have as fine yellow bees as I ever saw and they were reared on my place, but if it was not for sending off for new bees they would be just like they were when I first started with them.

I am now 54 years old and do not care to take up all new-fangled theories, but if a bee-keeper wants to keep up with the times I would advise him to send away for a new strain of bees. If I had the time I could furnish as good queens as the country affords. I have queens from different parts of the United States, and am acquainted with all strains of bees, and wish to say that it is not the color that makes the good quality. I have the 5-banded bees that are as good at storing honey as the darker ones, and I have come to the conclusion that it is the way the queen is brought into this world that makes the worker-bees get a hustle on themselves. A queen that is reared in time of natural swarming is worth half a dozen that are brought forth by making the bees rear their queen. I will tell my reason: I have had colonies become queenless, and I gave them some brood, and they reared themselves a queen, and if that is early, or after swarming-time, the queen is short-lived and her bees are not hustlers; they will just live, but store no surplus honey; but if in swarming-time you find a colony queenless, and give them a brood-frame with a good queen-cell, you will have bees that are good hustlers.

It is very warm now, and we may expect the honey-flow to cease, but I am expecting honey-dew as it is now turning dry weather, and has been too wet for honey-dew before. D. R. ROSEBROUGH.

Clark Co., Ill., July 8.

◆

Oregon as a Bee-Country.

On page 327, "Bands" wants to know if Washington, Oregon and Idaho are favorable bee-countries, and of what the pasturage consists.

I can only speak of the most western part of Oregon. I am six miles from the Pacific ocean, and one of the most fertile creek bottoms of the Coast Range mountains. I would call this a good bee-country, if it was not for the rain or high fog most of the time, July and August excepted.

Bees did not show their noses till the first of April, then they went out and found the Oregon cherry blooming, which is the first polleo-producing plant. In quick succession commenced skunk-cabbage, alder, huckleberry, salmonberry, vinemaple, and maple, to bloom. The last three are our most important spring honey-plants.

Employ Nature

The best physician to heal your ills. Send for FREE Pamphlet explaining how diseases of the Blood. Skin, Liver, Kidneys and Lungs can be cured without drugs.

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Of Bee-Hives, Sections, Shipping-Cases, Comb Foundation, and **Everything** used in the Bee-Industry.

I want the name and address of every Bee-Keeper in **America.** I supply Dealers as well as consumers. Send for catalogs, quotations, etc. **W. H. PUTNAM.**

RIVER FALLS, Pierce Co., WIS.

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That will keep Hen's Eggs perfectly through warm weather, just as good as fresh ones for cooking and frosting. One man paid 10 cents a dozen for the eggs he preserved, and then later sold them for 25 cents a dozen. You can preserve them for about **1 cent per dozen.** Now is the time to do it. while eggs are cheap.

Address for Circular giving further information—

Dr. A. B. MASON,

3512 Monroe Street, - TOLEDO, OHIO.

FOR SALE.

1000 pounds of White Clover Comb Honey. Price. 13½ cts. per pound.

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"Queens Given Away."

Gray Carniolans and Golden Italians.

We will give a fine Tested Queen (either race) to all customers ordering 6 Untested Queens, and a fine Select Tested Queen to all who order 12 Untested Queens at one time. The Queens given away will be sent to customers in August.

Grade and Prices of Bees and Queens	April May June	July Aug. Sept.
Untested Queen	$ .75	$ .65
Tested "	1.50	1.25
Select Tested Queen	2.50	2.25
Best Imported "	5.00	4.00
One L Frame Nucleus (no Queen)	.75	.50
Two " " "	1.50	1.00
Full Colony of Bees " (in new dovetailed hive)	5.00	4.00

We **guarantee** our Bees to be free from all diseases, and to give entire satisfaction.

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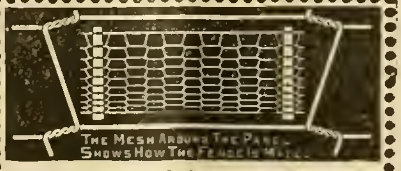
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HAVE A GOOD FENCE

and you will have good neighbors. There are no trespass suits when the **KEYSTONE FENCE** is used. Why! It holds stock and turns stock. Any height desired. See all about it in our **free** book on **fence building.**

KEYSTONE WOVEN WIRE FENCE CO.,

No. 3 Rush Street, **Peoria, Ill.**

Mention the American Bee Journal.

June 7 I found new honey in the brood-nest in such an amount that I put supers on most of my colonies. The flow was heavy and lasted a few days more than six weeks. Altho coming so early, I had two colonies finishing 40 sections and filling 10 half-depth extracting-frames each. The weakest colony, which had been flying more or less all winter, owing to a faulty hive-cover, filled a set of 10 brood-frames, with the exception of a little brood in the middle ones. Then for 14 days we had lots of bloom—blackberries and other flowers—but no nectar. Now bees are making a living on white clover, but the yield will not be much before July 1; besides it rains almost every day. As soon as white clover is almost over, willow-weed commences, and lasts till the fall rains set in—about the middle of September.

April and May we have salmonberry, vine maple and maple; in June, blackberry, thimbleberry and barberry; in July, white clover; July and August, willow-weed, second growth white clover, and white immortelle. The first in the list and the last produce yellow honey, and the others a honey as clear as our mountain streams.

This is my fifth year in bee-keeping, and I twice found a gap between spring blossoms and white clover, and once between white clover and willow-weed. One year, the only spring honey I secured was from salmonberry blossoms, as hard rains washt out the nectar from the maples.

I have had no swarms yet, altho swarming has gone on in apiaries where box-hives are used, owing, I suppose, to crampt quarters. HERMAN AHLERS.

Clatsop Co., Oreg., June 19.

◆

A Last Season's Experience.

Smart bees—those Germans! I had put on the netted-hood, tuckt its folds gently down my manly bosom, and felt armored for a close interview with the colored colony. I approacht with that degree of courage which is supposed to awe bees into docile submission, besides I wielded the smoker with great dignity and dexterity. So far, so good.

I took off the cover, then lifted the board, and there! decorously and retiringly was the mass of living, humming and buzzing honey-gatherers. It was my purpose to introduce a wide-frame of sections in the space left too long vacant —and in which space they had built comb and placed some honey. In tearing this formation away the bees entered a protest, which, however, diligence and the smoker subdued. I had gotten this new comb out nicely and placed the frame in its place, and was about to close the hive when I bethought me to see if other sections were not filled. Lo, and behold, right there, to the right, were eight squares filled with luscious honey!

Forthwith I pried up the frame and took it out, set it on a board, and was about to remove others equally well-capt, when down went the removed frame and all the bees that clung to it, causing consternation among them. Immediately they swarmed around me, instinctively guessing I was the robber in quest of their well-earned supplies, and came a thousand strong! As bad luck would have it just at this time, the smoker had burned out and failed to attend to business. True, I had on the veil, but my chin was close against it, and—zipp—zipp—they struck the vulnerable point, and when I had hastily retired from their assault I had three good, healthy stings for my trophies of war. I pulled them out and awaited results. I felt great confidence that now the smarting would soon stop, but little swelling take place.

Alas, for human ignorance. The enlargement increast, instead. In two hours I had a neck approaching that of Grecian classics. In another hour the size of it would have been envied by the chiefest sire of a Durham herd. O, what a night I did put in, my countrymen! Not a wink of sleep, and early rising brought no perceptible surcease. As I write, I am reminded of the old continentals who wore stocks that had their nose in the air and their chins in outward front.

If the moral of protecting a projecting chin, and keeping a well-filled smoker for such occasion, enters your heart, I will have accomplisht all I anticipated by this sad recital. Swollenly yours,

EMM DEE.

Bee-Keeping on the Increase.

For some time I have been a reader of The American Bee Journal. I have often thought to tell how bee-keepers in the north-western part of Ohio are getting along. But in the last few years bee-keeping was a very discouraging business, and was so up to May 20 of this year, therefore my report prior to May 20 would not have been a very flattering one. The weather was cold and the constant rains made it very unpleasant for bees. But since then (May 20) we have had splendid bee-pasture. Our oldest settlers say they never before saw so much white clover in this section of the country any one year. The bees are doing extremely well. All bee-keepers whom I have spoken to lately seem to be well satisfied with the prospects this year. I find the American Bee Journal very educational and profitable for bee-keepers.

J. E. HAMBUROER.

Mercer Co., Ohio, July 2.

The Nickel Plate Road

Has been selected by Commander-in-Chief Clarkson for the transportation of himself and staff to the G. A. R. Encampment to be held at Buffalo, N. Y., Aug. 23rd to 28th. Tickets will be on sale Aug. 21st, 22nd and 23rd at the rate of $10.50 for the round trip.

This will afford an opportunity to the comrades now living in the great West and Northwest to once more visit the home of friends, and shake hands with those with whom they fought shoulder to shoulder in the great Civil War.

For full information call on, or address,

J. Y. CALAHAN, Gen'l Agent,
111 Adams St., Chicago, Ill.

H. THORNE, C. P. & T. A.
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Bee-Keepers' Photograph.—We have now on hand a limited number of excellent photographs of prominent bee-keepers—a number of pictures on one card. The likeness of 49 of them are shown on one of the photographs, and 121 on the other. We will send them, postpaid, for 30 cts. a card, mailing from the 121 kind first; then after they are all gone, we will send the 49 kind. So those who order first will get the most "faces" for their money. Send orders to the Bee Journal office.

Bee-Keeper's Guide—see page 464.

Van Deusen Thin Fdn.

A few 25-pound boxes of VanDeusen Thin Super Comb Foundation at $11.00 per box. Be quick if you want a box of it. Address,

THE A. I. ROOT CO.,
118 Michigan St. - CHICAGO, ILL.

500 NATURAL SWARMING QUEENS

At 50 cts. each; ½ doz., $2.80. Tested Queens at 75 cts. each.
The above are all choice, natural-swarming Queens, saved during the swarming season.
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Prof. LEWIS EDWIN YORK, Pres.

H. G. Quirin, of Bellevue, Ohio
—QUEEN-BREEDER—

Offers "Warranted" Golden, or Leather-Colored Queens at 50 cts. each, six for $2.75. Queens are Young, Hardy and Prolific; no disease in my locality. Have received orders from a single bee-keeper within 10 months for as high af 150 Queens. **My Bees speak for themselves.** 29A9t

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Texas Queens!

By return mail. Best honey-gathering strain in America. Untested, 75c. Select Warranted, $1.00. **J. D. GIVENS, Lisbon, Tex.**
9A26t *Mention the American Bee Journal*

THROAT AND LUNG DISEASES,
DR. PEIRO, Specialist
Offices: 1019, 100 State St., CHICAGO. Hours 9 to 4.

Illinois.—The annual meeting of the Northern Illinois Bee-Keepers' Association will be held at the Court House in Freeport, Tuesday, Aug. 17, 1897. All are cordially invited.

B. KENNEDY, Sec.
New Milford, Ill.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

See the premium offers on page 449!

Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Increasing the Bee's Length of Tongue.

Query 56.—Do you suppose it possible to increase the size—and especially the length of tongue—of the races of bees we now have? If possible, do you think it desirable?—N. Y.

P. H. Elwood—Yes.

A. F. Brown—I doubt it very much.

R. L. Taylor—It's quite possible as well as desirable.

J. A. Green—Yes, I think it possible and very desirable.

H. D. Cutting—I know it is possible, and think it desirable to do so.

Prof. A. J. Cook—Yes, I have no doubt of it, and I believe it is desirable.

W. G. Larrabee—I think it would be desirable, but I somewhat doubt its being possible.

G. M. Doolittle—Desirable? Yes; but not practically possible with the rank and file of bee-keepers.

Eugene Secor—Possible, perhaps, but I have little hope of seeing any definite results in either direction.

C. H. Dibbern—Yes, by careful breeding from long-tongued stock. It certainly would be desirable.

E. France—I should guess it would be a slow process to breed bees up with longer tongues. It would be desirable.

J. M. Hambaugh—Here is room for experiment. Let some one try by increasing the size of their combs for breeding.

Jas. A. Stone—I do not know about the possibility, but think it desirable if it did not at the same time increase the length of the sting.

Rev. M. Mahin—I think it would be desirable, but I do not think it practicable. If we could control the mating of queens it could be done.

Mrs. L. Harrison—I think that it is possible and very desirable. Progression is a law of Nature, and the "survival of the fittest" brings improvement.

Dr. J. P. H. Brown—With only our present knowledge of controlling fertilization, the possibilities in the case rest upon a frail tenure. It would be desirable.

G. W. Demaree—May be possible, but hardly practicable. It is not a demonstrated fact that increase in size in our bees would make them better than they now are.

Dr. A. B. Mason—Yes, to both questions. But if Apis dorsata is to be domesticated in this country, there will be no need of improving the races we now have.

Chas. Dadant & Son—Yes, to both questions. We can lengthen the tongue of our bees as we increase the fattening disposition in hogs, or the trotting in horses, or the milk in cows, by selection.

Dr. C. C. Miller—As there is at present a decided difference in different colonies, I see no reason why selection in breeding might not establish a strain with long tongues. It would surely be desirable.

Emerson T. Abbott—To answer the latter part of the question first, I will say, as I have often said before, that bees, unlike people, cannot have too much tongue. If there is anything in the doctrine of evolution, yes.

J. E. Pond—Not to any extent. It is barely possible that by giving strict attention to the point for a long series of years, that an infinitesimal length might be added, but I question if the experiment would pay, anyhow. As to the desirability, I can't see any reason why an added length would be an advantage that would have any weight, in comparison with the difficulties in experimenting and the disadvantages that would arise in consequence.

HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., July 7.—Fancy white, 12@13c.; No. 1 white, 11c.; fancy amber, 10c.; No. 1 amber, 7@9c.; fancy dark, 8c.; No. 1 dark, 7c.; white, extracted, 5@6c.; amber, 4@5c.; dark, 3½@4c. Beeswax, 26@27c.

Not any new comb on the market. Extracted offerings are free, and sales very few, causing a weak market.

St. Louis, Mo., July 5.—Fancy white, 12@12½c.; No. 1 white, 11@11½c.; fancy amber, 10@10½c.; No. 1 amber, 9@10c.; fancy dark, 8½@9c.; No. 1 dark, 7@8c.; white, extracted, 4¾@5c; amber, 4¼@4½c.; dark, 3½@4c. Beeswax, 25½@26c.

Movement of honey is very light; the weather too warm, and prices are nominal. Very little selling.

Indianapolis, Ind., July 5.—Fancy white, 10@12½c.; No. 1 white, 9@10c; white, extracted, 4@6c. Beeswax, 25@27c.

Big crop is being secured in this State. No demand for other grades than those mentioned.

Cincinnati, Ohio, July 5.—No. 1 white, 10@13c.; No. 1 dark, 8@10c; white, extracted, 5@6c.; amber, 4@5c.; dark, 3½@4c. Beeswax, 22@25c.

There is a fair demand for extracted honey, which, however, must be sold cheap to meet the buyer, as the great bulk goes to the manufacturer. Demand for comb honey is slow, as usual, at this time of the year. Several shipments of new comb honey have arrived already.

Albany, N. Y., July 5.—Fancy white, 11@12c.; fancy amber, 7@8c.; fancy dark, 6@8c.; white, extracted, 5c; dark, 4c.

But very little is doing in honey this month. There is a small stock of inferior comb honey on the market, and quite a little extracted. Bees are said to be doing nicely in this section.

Buffalo, N. Y., July 6.—Fancy white, 9@10c.; No. 1 white, 8@9c.; fancy amber, 7@8c.; No. 1 amber, 6@7c.; fancy dark, 5@6c.; No. 1 dark, 4@5c.; white, extracted, 5@6c. Beeswax, 23@28c.

No demand now for either new or old honey, altho it can be sold, of course, at some price.

Milwaukee, Wis., July 6.—Fancy white, 12@13c.; No. 1 white, 11@12c.; fanch amber, 9@10c.; No. 1 amber, 8@9c.; No. 1 dark, 5@7c.; white, extracted, 5@6c.; amber, 4½@5c.; dark, 4@4½c. Beeswax, 26@28c.

The supply of honey is ample for all demands, and some old stock is yet on hand that is very hard to move, as quality is poor. The fancy is nearly all gone. Extracted moved some during the last week. Small receipts of new—quality common. We think our market will be in good order for shipments of new crop. We hope there will be a markt improvement in quality and package, all along the line.

Kansas City, Mo., July 7.—Fancy white, 13-14c.; No. 1 white, 12-13c.; fancy amber, 11-12c.; No. 1 amber, 10-11c.; fancy dark, 9-10c.; No. 1 dark, 8-9c.; white, extracted, 5-5½c.; amber, 4½-5c.; dark, 3½-4c. Beeswax, 30c.

New comb honey has begun to come in, but no new extracted. The demand is not large on account of fruit and vegetables being so plentiful.

Detroit, Mich., July 7.—Fancy white, 10-11c.; No. 1 white, 9-10c.; fancy amber, 8-9c.; No. 1 amber, 7-8c.; fancy dark, 6-7c.; white, extracted, 5-6c.; amber, 4-5c.; dark, no sale. Beeswax, 25-26c.

There is some old honey in the market and new is arriving.

Boston, Mass., July 6.—Fancy white, 13c.; No. 1 white, 11-12c.; white, extracted, 7-8c.; amber, 5-6c. Beeswax, 26c.

Honey is selling slowly now, but this is expected during warm weather. Beeswax is practically out of market as far as supply is concerned, but the demand is good.

Cleveland, Ohio, July 7.—Fancy white, 12½c.; No. 1 white, 10-11c.; fancy amber, 9c.; fancy dark, 6-7c. Beeswax, 28-30c.

Honey is moving very slowly; no demand for it whatever.

San Francisco, Calif., July 5.—White comb, 1-lbs., 7-9c.; amber comb, 4-6c.; extracted, white liquid, 4½-5c.; extracted, light amber, 3½-4c.; dark tule, 2¾c. Beeswax, fair to choice, 25-26c.

A grain vessel clearing the past week for Liverpool took 200 cases of extracted honey, which is the first noteworthy shipment outward this season. The market remains easy in tone, with liberal offerings, mostly of water white extracted. The foreign demand is mainly for amber grades at about 3½c., but not much has so far been obtained at this figure, and only the most ordinary qualities.

New York, N. Y., July 6.—Our market is bare of comb honey, and some demand for white at from 10-11c. Market on extracted is rather weak; demand slow of late, and arrivals plenty. We quote: Southern, average common grade, 50c. per gallon; better grades from 55-60c.; California light amber, 4½-4¾c.; white, 5-5¼c. Beeswax remains steady at 26-27c.

Philadelphia, Pa., July 10.—Fancy white, 13@14c.; No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 8@9c.; No. 1 dark, 7@8c. Extracted, white, 5@6c.; amber 4@5c.; dark, 4c. Beeswax, 25c.

New honey has commenced to arrive. Very little call at present. To-day is very dull. Prospects are for very low prices. Biggest honey crop in 10 years.

Minneapolis, Minn., July 10.—Fancy white, 12@14c.; No. 1 white, 11@12c.; fancy amber, 10@11c; No. 1 amber, 9@10c.; fancy dark, 8@9c.; No. 1 dark, 7@8c. Extracted, white, 6@7c.; amber, 5@6c.; dark, 4@5c. Beeswax, 24@27c.

Demand for extracted honey is nominal, but at fair prices. Comb very slow on account of warm weather.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. Burnett & Co., 163 South Water Street.

New York, N. Y.
Hildreth Bros. & Segelken,
120 & 122 W. Broadway.

Kansas City, Mo.
C. C. Clemoms & Co., 423 Walnut St.

Buffalo, N. Y.
Batterson & Co., 167 & 169 Scott St.

Hamilton, Ills.
Chas. Dadant & Son.

Philadelphia, Pa.
Wm. A. Selser, 10 Vine St.

Cleveland, Ohio.
A. B. Williams & Co., 80 & 82 Broadway.

St. Louis, Mo.
Westcott Com. Co., 213 Market St.

Minneapolis, Minn.
S. H. Hall & Co.

Milwaukee, Wis.
A. V. Bishop & Co.

Boston, Mass.
Blake, Scott & Lee., 57 Chatham Street.

Detroit, Mich.
M. H. Hunt, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
Walter S. Pouder, 162 Massachusetts Ave.

Albany, N. Y.
Chas. McCulloch & Co., 380 Broadway.

Cincinnati, Ohio.
C. F. Muth & Son, cor. Freeman & Central Avs.

Doctor's Hints

By Dr. PEIRO.

100 State Street, * Chicago, Ill

Biliousness.—The term is indicative of an arrest of proper action of the liver, and is recognized by a dull, "logy" feeling, not exactly pain, but an indifference to usual surroundings, loss of appetite even for foods that generally relish. Constipation is not at all an unusual accompaniment. Sudden cooling of the body after prespiring, or laying on the damp ground while very warm from work, are some of the most common causes of biliousness. A liberal diet of dandelion greens, either as a salad or boiled, is an excellent remedy. A week of this pleasant treatment will usually furnish the cure.

Crick in the Back is another of the unpleasant results of careless exposure to cold, as indicated above. The pain is very quick and sharp, and usually affects the small of the back, just above the hips. A wilted leaf of horse-radish firmly held over the seat of the trouble will prove a great help. A good remedy is to eat all the asparagus you wish.

Summer Complaint.—Dig up some roots of blackberry plants, wash clean and boil a handful in a quart of water for an hour. Strain the liquid through a cloth, add one quarter of its bulk of glycerine, cork the bottle tightly, and set it away in a cool place until needed. Then give one teaspoonful every hour or two, according to the severity of the case. The diet should be light—rice is best.

Colic or Cramps.—Such a condition is due to overloading the stomach with indigestible food, unripe fruits, or improperly prepared vegetables. This substance passes the intestines in an undigested form, and causes severe colic. Cucumbers that have been peeled too scantily—some of the skin being left on—are very apt to cause this distressing pain. A bath in as warm water as can be borne is always good, for any patient. A few drops of colocynth, every half hour, effectually cures.

Bunions are usually the result of too tight or ill-fitting shoes. The larger, or big toe, joint is so comprest that inflammation is set up in the joint with all the horrible pain incident to it. There is only one way to effectually cure it—it is to wear very soft, loose, slippers until it is well. Yes, it may take quite awhile, but you ought to be as patient for its cure as you have been persistent in its production.

Ingrowing Nails.—O will I ever forget that year's torture in my boyhood days! What cruel suffering for a moment's carelessness. If I had only trimmed that big toe nail with knife or scissor instead of pulling the nail off as I did! When it grew, the corner I had pulled off grew into the flesh that was prest upward in walking, and soon I had an affliction that robbed me of many weeks' peace. But if you are so unfortunate, go to a surgeon at once. You can't do anything for it yourself.

Scrofula.—Any of the various forms of "breaking out"—large pimples, big boils, running sores on the body, or lumps about the neck—usually come under the head of scrofula. All this denotes a debilitated condition of the system, most often inherited.

A very good remedy is a strong tea made of equal parts yellow-dock and dandelion roots, sweetened with honey as desired; a teaspoonful after each meal continued a good while.

Dr. Peiro.

FREE —A Copy of— **Successful Bee-Keeping,** by W. Z Hutchinson; and our 1897 Catalog, for 2-cent stamp, or a copy of the **Catalog for the Asking** We make almost **Everything** used by **Bee-Keepers**, and at **Lowest Prices.** OUR

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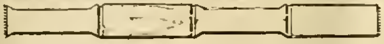

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BIOGRAPHICAL

JUSTUS VAN DEUSEN.

Some time ago we recorded the death of Mr. J. Van Deusen, which occurred March 28, 1897. We also expressed the hope that we might soon present his portrait, and this week, through the kindness of our esteemed contemporary—Gleanings—we show a very good picture of our departed friend.

It was our good fortune, several times, to meet Mr. Van Deusen at bee-conventions, where he was always a most interested attendant. His very presence seemed to be an inspiration, and his bright, honest countenance ever spoke a benediction.

Mr. P. H. Elwood, of New York—a life-long friend of Mr. Van Deusen—had this to say of him, in Gleanings, about the time of his death:

J. Van Deusen.

J. VAN DEUSEN'S DEATH.

We have to record the passing from earth to a wider sphere of usefulness the veteran Justus Van Deusen, in the 83rd year of his life.

We do not know what heaven is like; but we have a right to assume that those qualities of heart and mind that we are commanded to cultivate here will, under perfect direction, find wider scope and more ample employment in the hereafter.

We rejoice that our friend was spared the period of decrepitude that usually falls to the aged. Attendants at our national conventions, no matter how distant, have usually found him present, displaying the vigor of body and mind of men a score of years his junior. His presence was delightful, and a visit with him was an incentive to the ways that lead upward. As his nephew, Capt. Hetherington, well says, he was a fine example of the Christian gentleman.

From early manhood to 1848 he was engaged in the jewelry business. In the year following, the Van Deusen family built the woolen factory at Sprout Brook, which he ran for many years until he converted it into a comb-foundation factory. He was a fine mechanic, and was satisfied with nothing but the highest grade of material and workmanship. It is but justice to say that every skein of yarn and every foot of foundation turned out from his factory had workt into it the trademark of his life—the best. From small beginnings, because of the prejudices of bee-keepers against the flat-bottom cell, the trade in this foundation has steadily increast to large proportions; and the greatest tribute ever paid Mr. Deusen's good judgment is the recent adoption, by the most extensive manufacturers of bee-keepers' supplies in the world, of the flat-bottom cell in their highest grade of improved foundation.

He was the father of the late C. C. Van Deusen, the originator of several valuable inventions in bee-keeping, and whose tragic death, together with his wife, on their way to the World's Fair, so shockt the bee-keeping world.

P. H. Elwood.

Contributed Articles

Open Letter to C.B.Bankston—Errors Corrected

BY DR. C. C. MILLER.

I confess to some feeling of pain and discouragement, Mr. Bankston, upon reading from one whom I have lookt upon as a gentleman and a Christian, the items found on page 435 of the "Old Reliable." After saying it is easy to write from imagination, and that actual experience is needed, and that a popular lie is hard to suppress, you hold me up as the first example of a flagrant liar. I wrote, "Whoever saw laying queens fight? I never did." You quote that, and say this "was easily believed by the inexperienced." The plain inference is that the experienced would not believe it, and that it was not true. Now I want to ask you a plain question, and as a gentleman I'm sure you'll give a plain answer in print: Do you *know* that I ever saw laying queens fight? Unless you know that, are you justified in saying anything against my statement that "I never did?"

You say, "If men would write their experience instead of what they imagine......the errors of our fathers would soon be corrected." But just because I did that very thing you hold me up as a liar. One of the traditions of the fathers is that queens will fight to a finish at the first chance. My observation had been that this was true with regard to virgin queens, but never having seen laying queens fight, I had the temerity to raise the question whether it was ever true. I wanted what you say is so dear to you—"the unvarnisht truth"—and what better way than to publicly ask whether others had seen anything of the kind, and to tell the plain truth that I never had. Since writing that I have had further experience, and I now know that laying queens will sometimes kill one another, and sometimes not, and shall be glad of light from you or any one else as to which is the rule and which the exception.

A week or two ago, thinking to find out something more about the matter, I put two laying queens in a cage, and watcht to see what they would do. At first for a minute they paid little attention to each other, but then clincht. After a little they separated, and after that moved about in the cage with occasional conflicts. I then added other queens until there were six in the same cage. Throughout the day I glanced at them occasionally, finding more or less appearance of quarreling, but in the evening the whole six were still alive with no appearance of being injured in any way. This was on Saturday, and I was not again in the apiary till Monday, when I found only one of the six living. The question is whether one of the six was specially belligerent and killed the others, or whether they were all so much so that no two of them would have lived together with no others present.

You say, "I had not kept bees six months before I found that laying queens would fight to a finish as soon as the opportunity is presented." I think with more experience you will change your opinion, at least you will find there are many exceptions to the rule, if it be the rule. It was formerly held, I think, that two laying queens were never found in one hive. A good many have, however, reported two laying queens laying peacefully in the same hive, and I have had more than one instance. I think the cases reported have always been mother and daughter, the mother being old and to be superseded. I had, however, one case last year, in which for weeks two queens were in the same hive, there being no kinship between the two. One was bright golden and the other very dark. I hoped to find both living in the spring, but was disappointed. One spring I had a number of colonies so weak that I broke them up, but as I wanted to save the queens, I caged them and put them into a hive for the bees to feed. Running short of cages I put two in a cage, with little thought that both would live. But after a number of days both were still living, and each of them became the mother of a prosperour colony.

Now after the reports of others who had two queens in a hive without fighting, and after positively knowing several cases in which two queens lived peacefully together, I can hardly see that there was anything very wicked in my saying, "Whoever saw laying queens fight? I never did." Remember that it was after this time that I tried the six queens in a cage.

I plead guilty to another charge—that of saying that good queens can be reared from two to three days' larvæ, but as I am only one of a large number in saying so, the burden sits lightly on me. In fact, I have never before known the statement to be disputed, and I think you are a pioneer in disputing it. You say you can prove that no kind of a queen can be reared from a larva three days old. As that departs so widely from accepted tradition, and as we ought to have the whole truth, I hope you will not fail to give the proof.

You say, "Good queens can be reared from two to three days' larvæ. This is imagination. Experience says that good queens can be reared from two to ten hour old larvæ." I suppose that means that good queens cannot be reared from larvæ more than two to ten hours old. Are you sure, my good brother, that you are not drawing on your imagination in this? The highest authorities who have investigated the matter—Dr. Planta among them—tell us that for the first three days the food is exactly the same to a worker as to a queen larva. Doolittle takes the safe ground that there is no difference for the first 36 hours, but cautiously says, "Somewhere from this to the time the larvæ are three days old, the bees begin to stint them as to food," that is, the worker-larvæ. He says: "Hundreds of experiments in using larvæ from three hours old up to those of 36 hours, prove that queens from the former are in no way superior to those from the latter, while the bees always choose the latter where the choice is left to them."—(Doolittle on Queen-Rearing, page 43.) As your as yet unsupported dictum stands against the many experiments of so careful and painstaking a man as Doolittle, it will be necessary for you promptly to furnish the proof for your assertion, unless you wish to be cataloged in the list of those you so severely condemn, and who have called forth from you the exclamation, "Oh, if we could only be content to write what we know to be actual facts, instead of poisoning the minds of the seekers after knowledge with our imaginations, we would be a blessing instead of a curse to humanity!"

You have so plainly called me out by name, in making the first count of your indictment, quoting words that in careful reading I have seen from no other pen than mine, that I feel warranted in asking how you know that I do my writing from imagination and not from actual experience. And while I am at it, I will ask how you know that any one of those you condemn are in the habit of doing that thing. Has not your imagination dwelt so long upon the thought that it is now "stampt on your brain" as true, just as that deer lie was? I frankly confess that there are very many things in bee-keeping that I don't know much about, but, until your expose, I was laboring under the impression that I was writing largely from experience. That experience dates back 36 years, during which time bee-keeping has been my careful study, and for the past 20 years I have had no other means of livelihood but from the sale of honey, except the amount received from writing. I do not know how much greater your experience may be than mine, but I think I may claim at least some experience. At the present time I am working from early morning till dark, with the aid of an assistant doing the work of 239 colonies, spring count, workt for comb honey, getting up at 3 to 4 o'clock so as to get in the writing I have to do. Would it be asking too much if I should ask you to give us your larger means of observation that saves you the necessity of drawing on imagination? In the meantime, would it not be well to more earnestly cultivate that virtue commended in the Book we both revere—that virtue which "thinketh no evil," "and is kind?" McHenry Co., Ill.

Atmospheric Conditions and Nectar-Secretion.

BY REV. M. MAHIN, D. D.

Some few years ago there was quite a controversy in the American Bee Journal concerning the relation of bee-keeping and strawberry culture. I remember that I had a little hand in it, and said, in substance, that bees did not work on strawberry blossoms, and that the bees were of no use to the strawberries, and the strawberries of no value to the bees. That was in harmony with my observation up to the present season. Last year I had a strawberry patch 24x70 feet in extent, and I observed very closely to see if the bees would work on the blossoms; and I never saw more than two bees in the patch at a time.

This year the case has been widely different. From morning until night the hum of the bees among the strawberry blossoms was constant. They workt as freely on them as they usually do on white clover; and their distended honey-sacs gave evidence that their labor was not in vain. Whether there is any relation between the visits of the bees to the strawberry blossoms, and the very extraordinary crop of fruit, I will neither affirm nor deny; but in size and number I never saw anything approaching it.

What is said above of the strawberry will apply without any modification to the blackberry. In most seasons bees scarcely touch blackberry blossoms; but this season they literally swarmed upon them. And they left them with heavy loads, and the hives were rapidly filled with honey. There must be a cause for these facts, and what is it? I think the cause must be lookt for in the fact that the spring has been unusually damp and cool. I can imagine no other reason.

In regard to white clover the reverse is true. When the white clover began to bloom here, the wet, cool weather continued, and the bees, if they visited it at all, quickly left in disgust. But now we have clear days and hot sunshine, and the greatest white clover crop we have had for many years is yielding a good honey crop. I have many times observed that bees do not visit white clover early in the morning. The sun must be well up, and the air warm, that nectar may be produced by it. Buckwheat, on the contrary, requires a cool, moist atmosphere. In a dry, hot season, it is of no value for honey; and as in this country, in the season of its blooming, the weather is generally dry and hot, the buckwheat bloom is of very little value. Yet once in many years it yields well.

The golden-rod is, in this country, another capricious plant. The only variety that is at all plenty where I am acquainted is *Solidago Canadensis*. This is the 27th year that I have kept bees, and in that time golden-rod has yielded honey twice. The first time was in the early '70's, and the second was, I think, in 1881. I am not prepared to state the atmospheric conditions of those years.

The facts and observations stated above are very interesting from a scientific standpoint, and they would be of great practical value, if we could only control the weather; but so far we have not been able to do that even in the smallest degree. So we must do the best we can in existing conditions.

Henry Co., Ind.

Apiarian Self-Help and the Scrap-Box.

BY S. A. DEACON.

Few callings would seem better calculated to develop latent mechanical skill or to quicken the inventive faculties than that of bee-keeping, in which emergencies so frequently arise calling for some little dexterity in the use of a few simple tools; and, with a couple of bad seasons at the start, the tyro—who conceives himself endowed with a special mission to increase the world's honey supply—becomes a jack-of-all-trades and general botch ere he has probably produced a single pound of honey or owns a dozen colonies of bees. He has perhaps essayed to make his own hives, and may even with that "vaulting ambition which oft o'erleaps itself," have had the temerity to invent some new gim-crack or device to ease his labors and expedite the acquisition of expected wealth—*and*, to exhaust the patience of his long-suffering brother apiarists by making more complex an already far too complicated calling.

His smoker he will not unlikely have evolved from a superannuated coffee-pot and an old kitchen bellows, and which, while it is warranted to subdue the most vicious and refractory of bees, fetches out the fire-brigade each time its services are called into use.

His "starters," you will probably find, are cut by a self-feeding miniature guillotine, into whose construction have entered sundry parts of an eight-day clock, the handle of a coffee-mill, and the blade of a table-knife, all evidence of the fact of his having establisht that indispensable requisite to successful apiculture—or, at least, to successful amateur tinkering and carpentering—a scrap-box, and that he has learned the value of "self-help."

There are those who will perhaps think I am writing from experience—looking in the glass and painting my own phiz. Perhaps, to some extent, I am; I will not altogether deny the charge. Tho I venture, at the same time, to think that the picture will pass as a more or less correct likeness of a good many of us as we appeared in our sanguine salad days of bee-keeping in the long, long ago—

> "When all the world was young lad, and everything was green,
> And every goose a swan, lad, and every lass a queen.
> Then, hey! for boot and spur, lad, and ride the world away—
> Young blood must have its course, lad, and every dog his day."

Yes; and when a now prominent member of our fraternity (which his name it is W. Z. H.) was won't to gull the public into the belief that his hives were made of more costly stuff than mere wood by marbleizing the wetpaint with the smoke of a lamp, and carefully sweeping in front of them each morn with a broom!—(See page 12, Vol. XXXII of the Journal)—W. Z. had developt into an amateur painter, and was no doubt a bit of a tinker and carpenter to boot—*and of course knew the value of a scrap-box.*

I hardly care to count the years since a damaged patent lever corkscrew, a derelict sausage-mill, and the entrails of an old Dutch clock formed the nucleus of my own collection of oxidized trash, and to which I still never tire of adding. Indeed, I never happen across a bit of cast-away metal—unless it be some such ponderous trifle as a wreckt railway engine or a rusty ship's anchor and chain—but into my pocket it goes, and reposes there until opportunity offers of adding it to the scores of other "unconsidered trifles" in my now worm-eaten but much cherisht old scrap-box. Half a hinge, or indeed any bit of brass or iron with a hole or two in it, I deem a fairly good find, whilst a battered gun-barrel, an old door-lock, a broken barometer, or an ancient pair of scales, is, either of them, capable of exciting as much ecstasy in the scrap collector's breast as is usually displayed by the enthusiastic philatelist over the acquisition of some such rarity as a "Twopenny green Malta," or "Cape of Good Hope Fourpenny Triangular Blue."

Owing to the frequent demands upon its contents, my own scrap-box never gets full. It is a rare and interesting collection; let me show it you. There, comprising the upper crust, you see *inter alia* some odd nuts and bolts, a rusty hook, the stem of a brass candlestick, a padlock hasp, piece of copper syphon, a clock-spring, ditto pendulum, some brass cog-wheels, iron rings, rusty buckles of all sorts and sizes, from those off a pair of suspenders to that big fellow cut from some rotting harness; a wooden faucet, a hollow saucepan handle—ah, that, by-the-by, first gave me the idea of my new swarm-hiving device, and I shall be using it shortly. When a swarm issues, you know, the queen——but there, wait till it is patented, and then you can tell me what you think of it. Now here's a thing that's always coming in handy—the steel ribs of an old umbrella—every joint with a little hole drilled in it, you know; further, there's a rusty curb chain, a broken dog's-collar, some brass cartridge cases, the keyboard of a concertina, the mouth-piece of a bugle, and the middle section of a flute—

> "Their once sweet tones, alas, forever mute."

Dive through this upper stratum and you'll find an equally multifarious, and, in my eyes, valuable assortment down below. What! an *omnium gatherum* of useless rubbish? A conglomeration of rusty trash? Well, my friend, perhaps that's all it may seem to you who may not possibly have two mechanical ideas in your head; but to me it is a treasure chest, a box of untold wealth, from which I draw inspiration to devise, and substantial aid in perfecting what I do devise. Oh, you'd pitch it all away, would you? Very likely you would; nor heed the old adage to keep a thing seven years before getting rid of it. Now, experience has proved to me that were I to-day to throw away even the most insignificant and seemingly worthless thing in that box, and which may have lain there unrequisitioned any time these last 20 years, I should be sure to have an urgent need for that very thing to-morrow. Strange, is it not? but a fact nevertheless.

For instance, a bit of steel, part of the mysterious mechanism of a corset which years and years ago—ah, me! what memories some of these rusty scraps call up! Why, there's material for a big book of the most gushing kind of poetry quietly reposing in that worm-eaten old box—which years and years ago, I say, engirdled a thin, wasp-waisted maid, who to-day is a matron fair, fat, and far over forty, and which, after lying fully a score of years in that old scrap-box (the steel, not the matron), has quite recently proved of inestimable value to me, inasmuch as it has enabled me to utilize a thousand two-inch sections, which, not fitting my 1⅞-inch frames, were useless and of no earthly value to me. To reduce their width with a plane was easy enough, but how restore the slots? Cutting them out with a knife was far too tedious a process, and my son had once casually suggested "punching them out—*somehow.*" Ah, but how?

Well, one day while rummaging in my scrap-box I came across this narrow steel stay-rib; an idea struck me; its time had come, the problem of the slots was solved; and within less than two hours I was, by its aid, nipping out new slots as fast as my son could plane the sections down, or at the rate of 500 sections per hour. For the benefit of those who may wish to reduce wide sections to narrow ones, and who may be mechanically and self-helpfully inclined, I will, in a few words, tell how it was done:

First, I took a (to me) perfectly obsolete tool—a Parker's foundation fastener. On one side of the upper piece I made, by means of a center-bit, an oblong cavity whose sides were the exact shape and size of a section slot. Having first put a sharp edge on my bit of flexible steel, I curved it snugly into this cavity, and then wedged it up tight. In the bottom half of the Parker, and just where this cutter would strike, I chiseled out a ½-inch groove, which I run full of molten lead, and, when cool, smoothed down with a chisel. I then hinged the two parts together, tackt a slightly projecting bit of section on one side of the bottom half, for a guide (into which the V-groove of the sections to be manipulated fitted), and—that was all. They cut like cheese, and as clean as a whistle; and "long before the sun gaed doon" the job was jobbed, and these thousand sections, long regarded as worthless, were now, with a honey-flow at hand, worth fully ten dollars to me. Nor would the closest examination fail to induce any other opinion than that they were turned out just that size from the factory down at Medina, Ohio. The scrap-box served me well that shot!

I would add that reducing the width of sections is easily done by placing about a dozen of them between planks nailed flat on either side of them, and carefully guaged to the right measurement, then plane away. But, easy and simple as the plane is, I fancy sections are too cheap in your part of the globe for many to bother. Like the poor, the supply-dealer is always with you; here it is different; owing to frequently recurring drouths, the normal scarcity of bee-pasturage and poor markets, the apiarist has small encouragement, and hence the "supply-dealer" is, so to say, unknown. It is a far cry to the States, and what with heavy sea-freight, import dues, landing, wharfage, storage and breakage, and having to pay at the rate of ½ a ton for freight on the smallest package, things come so costly that often one must either help oneself or—go without; and that is how our ingenuity gets developt.

For instance, we once read how the late Mr. B. Taylor made a practice of leveling down unfinisht combs in sections. Coming from such an authority we knew it to be good; but what *was* a comb-leveler? Root listed nothing of the sort—not then. My first impression was that the combs were simply *scraped* down; my son, on the other hand, suggested heat; so the tin shears and soldering iron were brought into requisition; and when, some time after, I got Dr. Miller to describe Mr. Taylor's comb-leveler in the pages of the American Bee Journal, I found we had pretty well hit it. Anyhow, the leveler which we made out of our own "'eads," or rather out of a gallon kerosene tin and sundry contributions from the ever-handy scrap-box, answers the purpose very well, and—cost nothing.

Again; we used to fix on starters with melted wax and a camel's-hair brush. It was a slow, messy, and unsatisfactory process, and I longed in vain for a better. "Many's the time and oft" I had pondered over that little wood-cut of the Daisy fastener, and wondered, and kept on wondering, how it was workt. At last one day, my son, who was busy leveling down some combs, suddenly exclaimed, "*Now* I know the principle of the Daisy fastener! The lamp heats a thin sheet of metal, which melts away sufficient wax to fix the starter in its place." "Can we make one, think you?" I askt. With that colonial confidence begotten of being so often compelled to help one's self, he promptly answered "Yes, or I'm a Dutchman." Well, the scrap-box was overhauled, and a spiral steel spring (once part of an automatic cart-brake, and worth that day fully its weight—well, in silver if not in gold) was ferretted out, and on the following day our Daisy was at work turning 'em out like 'ot-cakes, and fully warranting the assurance that it was equal to fixing 500 starters an hour; at least we've done 450 per hour on our home-made tool, and that "without a heffort."

But wait till our automatic machinery for turning out sections of nice white honey by steam by the million and *for* the million, is perfected—if the scrap-box will only stand the strain. No more painful stings, no more sticky propolis, no more plaguy bee-bread, and, better than all, no more pesky bees! A crate of sections is simply shaken out into one big hopper, five barrels of sugar and a pint bottle of Essence of Floral All-Sorts into another *quantum suff.* of water, and melted ceresine turned on, the belts adjusted, the lever pusht back, and then—but there, it is not protected yet; when it is, I will let you know—until then, adieu.

SPREADING BROOD AND BREEDING UP.

P. S.—Will some one of the California contributors—perhaps Dr. Gallup or Prof. Cook—kindly inform us, through the American Bee Journal, whether spreading brood is had recourse to by the majority of California apiarists *at any time during the year?* that is to say, not merely *at springtime*, but may be in the middle of summer, or towards the end, should a let-up in nectar-secreting flowers have reduced the colonies and weakened them for an expected flow.

Also, does experience show that colonies may be made to breed up *at any time during the summer* by artificial feeding, to an extent commensurate with the cost and labor of feeding? or is it only calculated to expedite breeding up *in early spring*, when the bees are ready to breed up *naturally?*

"PATENT VENEER WOOD" FOR SHIPPING COMB HONEY.

Is McCullum's "Patent Veneer Wood," from which fruit-boxes are now so extensively made, at all likely to be found serviceable for shipping comb honey, and to come into general use for that purpose? I would much like to see something about this wonderful new invention, and its adaptability to our calling, in the American Bee Journal. It might even do for hives, certainly for supers, as it cannot warp, and is as strong as iron—at least so it is claimed by Mr. McCullum, who is now in Cape Town, pushing his invention amongst our fruit-shippers.

South Africa.

Watery-Appearing Capping in Comb Honey.

BY O. M. DOOLITTLE.

QUESTION.—In the fall of 1894 I Italianized a part of my apiary, and during the season of 1895 the colonies which were so Italianized gave me section honey which lookt badly on account of the capping to the cells apparently lying flat on the honey, with no air-space under the capping: I had noticed a very little such before, in colonies that had a trace of Italian blood in them; but the Italianized colonies gave two-thirds of all the honey they stored, of such a watery appearance that it hurt the sale of my honey much. I do not recollect ever seeing anything regarding this matter in print, and ask if this capping close to the honey is a characteristic of the Italian bee.

ANSWER.—The matter of watery-appearing honey was the subject of much discussion at our bee-conventions and elsewhere in the early 70's, at about the time the Italian bee had obtained a good foothold in the United States, and very many condemned them on account of their being so economical of wax and space as to give their comb honey the appearance our questioner speaks of.

If the questioner had noticed more closely he would not only have discovered that, besides there being no air between the capping and the honey, the capping itself contained less than one-half the thickness in wax that is used by the black bees. While the Italian bee was condemned by many comb-honey men on account of their bad-appearing honey, yet those who used the extractor were loud in their praise of this quality; "for," said they, "as less wax is used, less honey will be consumed for wax-secretion, and this will give us the amount of honey which the black bees use in secreting wax for us to turn directly into cash." Hence it came about that the Italian bee was especially recommended for an apiary workt for extracted honey, while the blacks and hybrids were thought by some to be the better bees for comb honey.

Not long after this it was noticed that certain strains of the Italian bee, and those coming from mothers many generations off from imported stock, gave combs of a whiteness which nearly if not quite equaled those produced by black bees, and so we set to breeding in this direction till the success along this white-capping line was so great that scarcely a thing about the watery appearance of comb honey has appeared for the past eight or ten years in our bee-papers.

Here lies one of the objections made by some against the further importation of bees from Italy, that, by such importations, we have a new warfare to begin till we can breed this watery-capping propensity out of them. While I think there is something in this objection, still, so far as I know from personal experience, and some facts gleaned from others, a great advance along the line of white capping of comb has been made in Italy as well as in this country; and our questioner must have gotten hold of some of the very worst bees along this line which are imported from Italy today.

With me the Cyprian bees were worse along this watery-appearing-comb line than the Italians; while the Syrio-Italian bees, sent out by a prominent apiarist, were the worst I ever saw—so much so that their honey was hardly salable at any price, without explanation, as the people lookt upon it with suspicion of adulteration, or that it was glucose capt by machinery, according to the "fake" that was then abroad in the land.

Had it not been for the many good qualities of the Italian bee, this quality of poor-looking comb honey, that was noticed at the start, would have doomed them just as surely as the stinging propensity did the Cyprians. But the Italian bee is in this country for its many good qualities, and it is here to stay for all time, and in time the objection spoken of by our questioner will be a thing entirely of the past.—Gleanings.

⁂

Making Bee and Honey Exhibits at Fairs.

BY J. C. WALLENMEYER.

[Continued from page 451.]

I believe St. Louis has the finest exhibits, and I remember being over-awed by a display of E. T. Flanagan (I believe in 1890), that was simply immense, and he was right in with the pumpkins and cabbages. To show what can be done in this line if the apiarist be an enthusiast, I will say that altho not one cent was offered in premiums by the managers of the St. Joseph (Mo.) Exposition, a very large and fine display was arranged by local apiarists. This proved such a great attraction that the officers the next year offered $120 in premiums, besides Diplomas, and said they would double the amount the next year. Mr. Thomas G. Newman, then of Chicago, was secured to lecture on "Bees and Honey." Thus the bee-keepers of that section were encouraged to such a remarkable degree that they made better progress than that class of apiarists who are content to pursue the even tenor of their way.

But to return to my exhibit of 1894. Altho I captured all the first premiums offered, my first year's fair experience did not prove very profitable, as I was $27 out of pocket after paying all expenses. However, I was fully compensated, as I had lots of orders for fall delivery. The results of this first experience did not dampen my enthusiasm one whit, for in 1895, altho securing only a half crop, I had a pretty fair display, and upon request was granted free the privilege of selling honey lemonade.

My two sisters and the young lady who is now my wife, helpt me to sell the lemonade. We again got all the first premiums, and cleared $40 over all expenses on our honey lemonade, while other lemonade sellers never made expenses. Seeing what a great source of revenue this honey lemonade feature was, I went in on a larger scale for the fair of 1896.

At our 1896 fair we had our display of bees, honey and wax all built into a beautiful house. The bee-supplies were shown in show-cases, with all the latest bee-books. We had snow-white, glass-covered cases made in two sizes, with beaded frame fronts to take the regular Langstroth and Dadant extracting-frame. Into these were put combs that were built out on new sheets of foundation, representing brood in all stages, from the laying of the egg to the emerging from the cell of full-fledged worker and queen-bees. The production of honey was also shown in all the various stages from the wired frame of undrawn foundation to the beautiful combs of honey with cappings white as snow. All these cases were arranged respectively so that even the dullest person could see at a glance just how the whole thing is done. The extracted honey was shown in different kinds of packages. The cases were arranged so as to form a house, leaving places for doors and windows, which were framed out with different sized cakes of pretty yellow beeswax molded into fancy shapes.

Those cases containing bees should have one-inch auger-holes bored at the sides, covered with screen wire, and these sides should be exposed. This can be done by placing these cases to form the doors and windows. About every hour or so you must take a new smoker and pump fresh air to the bees through the ventilating holes, and if they still "holler for more" air, or "too hot," spray cold water through the screen with an atomizer until you see them drop their wings, when the temperature will be just right. I had two colonies in 1894 cookt before my mother gave me these kinks.

In the windows were nice lace curtains of the latest design. The door had a glass transom on which was painted in artistic letters simply, "J. C. Wallenmeyer, Apiarist." On the door was a placard reading: "This house for sale by the pound. Leave your order for a portion of it, to be delivered after the fair. Comb, 20 cents; extracted, 12½ cents a pound." Many orders were received in this way.

In one of the windows was a card saying every one could have a free guess on the weight of the house, and the one coming nearest would receive a large jar of honey as a present. Now, some might object to these guessing contests, and not like the offering of prizes, but I cannot see any harm therein as it is all free. Besides, these contests take well with the people, as they help to draw a crowd, and that is what we are after. You know it is quite natural "ter foller the crowd."

Of course, everybody was anxious to get a free guess, and the guesses caused considerable merriment, as they ran all the way from 20 pounds to 30 tons. I was out in front of the exhibit telling the people the honey extractor was neither a washing machine nor butter-churn; that there was no King, but a Queen, and that the beeswax cakes around the window frames were neither maple sugar nor hard soap. I lectured every half hour on bees, always had a large crowd of eager, interested listeners, and invariably wound up with advice to the crowd to try a glass of honey lemonade; and that if they did not like it, they need not pay one cent for it. Let me say that during all of my fair experience, I have never been askt to refund a cent to a dissatisfied party. This was owing to the superior quality of our lemonade.

Altho not an apicultural writer, I have endeavored to tell in a plain way how to make a good exhibit, and how to sell honey lemonade. You will feel refresht after your fair experience, as you will have met the bee-keepers from a distance, for they gather around the bee and honey exhibit to get acquainted one with another, and exchange ideas. Inquiry among these bee-keeping friends will reveal the fact that about only one-half take a bee-paper. So you had better get some for samples and judiciously distribute them and then solicit subscriptions.

Do not underrate the value of these exhibits. It is not only that little premium that you are striving for, but the valuable advertising you and your business receives in thousands of homes should also be considered.

The fairs will soon be here, and if you wish to create a good home market for your crop, plan out your exhibit at once, tell your fair secretary how much space you need, then make your drawing, and have everything in readiness so that you will not be disappointed. Do not wait until the last moment to make the necessary arrangements, and I am quite sure you will feel amply repaid for any effort you may make in behalf of our chosen and beloved pursuit.

I trust this article will be the means of inspiring many of our leading apiarists, who complain of unjust commission men, to make bee and honey exhibits, and if you only follow directions you cannot fail of success.

Vanderburgh Co., Ind.

Value of Bee-Keeping on the Ranch.

BY PROF. A. J. COOK.

In the last fifty years bee-keeping has very much changed in its methods. The invention of the Langstroth hive, which gave a scientific basis to the art, made bee-keeping not only very much more interesting but more profitable as well. Previous to that time, almost every farmer would have his few colonies of bees. These were in barrels or old boxes and so there was very little expense attending the business, and all the profits that did come were so much clear gain. In those old times there was almost sure to be some profits. The fact of greater profits then, than could be expected with the same methods to-day, is easy to explain, as then there were very few bees, comparatively, and no large apiaries; and owing to the fact that the forests were then uncleared the native honey-plants existed in great profusion. Those who kept bees at that time did it for the honey for home use, or the slight profit that might come from sales of the little surplus secured. There was very little enthusiasm in the pursuit, and thus the beautiful comb honey that we now see on the market, and the hardly less excellent extracted honey, were never produced.

With the advent of the Langstroth hive, there was an entire revolution in the business. This opened up the hive and all the mysteries within to the bee-keeper, and thus the business from that time on possest a rare attraction to those curiously inclined.

Again, the chance for profits is very much greater now than previously. Nothing is left to accident, but there is science in the whole business, and so long as the flowers are abundant and the seasons propitious, the bee-keeper can count on a handsome profit each year. Thus it is that specialists have become common, and the farmer bee-keeper who will not look after his bees or do the work in neat, orderly fashion can no longer compete with the specialist who depends wholly upon his bees for his income and consequently studies into all the best methods of management. For the last fifteen or twenty years, the business has been carried on almost wholly by specialists. There is no question but that this has been a grea advantage to the art of bee-keeping. Those who engage in it are men of rare intelligence; they read the best books, take two or more of the best bee-journals and are genuine students of their business. Thus the bee-keepers are informed in regard to all improvements of the industry, and it is safe to say that no manual pursuit has made more rapid strides.

Without doubt, this radical change has been a detriment to general farming and especially to horticulture. The pomologist, the man who depended upon the fruits of his orchard for his livelihood, perhaps suffered the most from this change. As all intelligent men now know, bees are of great importance in all kinds of agriculture and of exceeding importance to the fruit-grower. We see then, that the massing of colonies of bees in large apiaries and removing them from the farms would oftimes leave orchards and fields wholly or largely without bees, to the great detriment of their owners. There can be no question but that the return to the old system of a few colonies of bees on each farm or ranch, would be of great advantage to the general rancher. The fact is, that in nearly all parts of the country, California will undoubtedly be an exception unless the frequent droughts make honey-production as precarious a pursuit here as in other sections, the failure to secure a honey crop are so common that many specialists are becoming discouraged. The fact that in many seasons there is no crop, not only makes the business unsatisfactory from the point of income, but also from the fact that the bee-keeper is very often like Othello—his occupation gone. When disasters occur, as they have in many parts of the country for two or three years in succession, the outlook is certainly not encouraging.

Mr. Langstroth, who had wondrous vision, prophesied several times before his death, that bee-keeping would return again to the old regime of bees on every farm instead of being mast in large apiaries and controlled by specialists. It is certainly true that we must have bees, and the more they are scattered in the agricultural communities, the greater will be the honey product, and the more thorough will be the pollination of the various cultivated plants. Is it not wise, then, for our ranchers to consider the matter of keeping a few colonies of bees in their orchards? If this is a wise thing to do, and I believe it is, then surely it will come in time. Is it not wise for each rancher to consider the matter now, and see if the time is not ripe for this change,

I know many farmers feel that they have as many calls upon their time and energies already as they can attend to. As they realize then, that this industry is an art in itself and requires no little intelligence and study to conduct it, in the best fashion, they will be altogether discouraged in regard to adding it to their already over-full duties. I think, however, there is another way to look at this matter. In almost every business, the person engaged in it will be more successful if he adds some avocation. This last being entirely different from his regular work, will give restful pleasure and will make life pleasanter and his success more certain. Bee-keeping is especially desirable in this connection as there are very few kinds of work that are so full of interest and so generally attractive as this. There is so much that is marvelous in the economy of the honey-bee that the bee-keeper must be stupid indeed who does not become an enthusiast. I think, then, that any rancher might well take up the study of bees from an intellectual point of view, and for object lessons or illustrations of what he has studied, he may well keep a few colonies of bees. These will bring him much pleasure as he observes and studies them, and the bees will be right at his door to perform the important work of pollination in his orchards. This alone will be enough to attract the wise, thoughtful man, and so if there is in addition more or less profit, this will be clear gain.

There is another way to look at this, and I am glad to call attention to it. We hear a great deal of late in regard to the boys leaving the farm. Is there not a way to keep the boys on the farm? It is certainly well to get any boy interested in any intellectual study and investigation. It is much better for a boy to be reading and studying during the long winter evenings than to be out in questionable places and with questionable companions. If parents engage with him in this study, it brings a delight in the home which can hardly be excelled. It will also add very much to a boy's interest in home if he has something that is wholly his own, and if this something has a money appendix, it will attract him all the more. I can hardly think that any subject of study will attract the wide awake curious boy more than the subject of bees. If he has bees right at hand, to observe in connection with his reading and study, the interest will be greatly augmented. If he is told that the bees are his own and that whatever proceeds come from them, shall belong to him to use as he may desire, he will certainly become intensely interested in the bees, and shall I say, in his home as well?

This is not wholly an imaginary sketch. I know of a father who did just this thing. He had no trouble keeping his boys at home. Home was then, and it is now, altho these young people are to manhood grown, the most attractive and delightful place on earth to them. But the story does not end here. The product from these bees paid the entire expenses of sending these young men through college. Thus bee-keeping on this farm stimulated the farmer boys to study the things of nature, made their home wonderfully attractive, and gave them a good-sized bank account. There was still more of interest in this case. The father, through the boys, became interested in the bees, and after the boys left home for college, the father secured a greater income from the bees for two or three years in succession than he received from all the balance of his farm, though he had a good farm, well stockt, and has the reputation of being one of the best farmers in the community where he resides. The experience of this gentleman, and on this farm, might well be repeated on any other of the farms of our country. I believe it has a great deal to recommend it.

In case any one may wish to follow out this suggestion, I would advise him to go slow, and before any bees are secured to become thoroughly informed as to the natural history of the honey-bee, and the science and art of bee-keeping. It is thus desirable to secure a good manual of bee-keeping in advance, and make a thorough study of the subject. It is also desirable to take one or two of the excellent journals, publisht in our country, relating to bee-keeping. This study will be well worth while for its own sake, and may be best undertaken during the winter when the evenings are long and the work of the farm possibly less pressing. In a single winter a person, or better a whole family, will thus become informed in regard to one of the most delightful studies in natural history. The next spring, in California as early as February or March, a colony of bees should be purchast in a good Langstroth hive. This need not cost more than from three to five dollars, and will really be the only necessary outlay in carrying out this whole project, if we except the money paid for the books and papers.

I would advise that after this, the apiary increase no more rapidly than it would from this single colony. In this way, the business is not at all irksome, and by the time that the colonies become numerous, and the work at all arduous, the experience and skill will be sufficient so that there will be no anxiety or trouble in caring for the bees.

I have spoken above of the boys. The work is no less well adapted to girls. I know of one woman who followed the above suggestion with the purpose of finding employment out-doors and benefiting her health. She made so great a success that her profits the third year were between \$300 and \$400, and her health became marvelously improved. I hardly need say that she is an enthusiast in bee-keeping, and is well known throughout the country because of her success. I should say, however, that not every woman would succeed as she did, because few would exercise the intelligence, care and promptitude that distinguisht her first years of bee-keeping.
—Rural Californian. Los Angeles Co., Calif.

The Horse—How to Break and Handle.—This is a pamphlet of 32 pages, giving complete instructions for breaking and educating colts, teaching horses to drive, and for use under the saddle, together with many instructions which have never before been publisht, and which are the result of the author's experience covering a period of 20 years. By Prof. Wm. Mullen, with whom the editor of the Bee Journal is personally acquainted. Price, postpaid, 20 cents; or given as a premium for sending us one new subscriber to the Bee Journal for the rest of the year at 50 cents.

* * *

The Names and Addresses of all your bee-friends, who are not now taking the Bee Journal, are wanted at this office. Send them in, please, when sample copies will be mailed to them. Then you can secure their subscriptions, and earn some of the premiums we have offered. The next few months will be just the time to easily get new subscribers. Try it earnestly, at least.

* * *

Back Numbers Since Jan. 1.—We are able to supply complete sets of the Bee Journal since Jan. 1, 1897, to any who may desire, at two cents per copy. There are a number of new readers who perhaps would like to get some of the first numbers of this year, to complete their volume for 1897. We shall be glad to furnish them as long as they last, at two cents each.

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Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

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Next Annual Meeting at Buffalo, N. Y., Aug. 24–26, 1897.

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Editorial Comments.

Buffalo Hotel Accommodations, during the convention of the United States Bee-Keepers' Union, will not all be sold out entirely to the Grand Army. The bee-keepers will be taken care of all right, be sure of that. We hope no one will remain away, fearing that Buffalo will not be able to "eat and sleep them." In a recent letter, Mr. Hershiser wrote us as follows:

> "There will be no lack of good accommodations in private families. We cannot afford to miss this grand opportunity for a great and interesting convention. I will do all in my power to the end that every one is comfortably housed and fed, and I feel quite certain that no guest of this city will have reason to complain."

Mr. Hershiser thinks that perhaps he can arrange to have the bee-keepers all together in one house, to be fed at the same place, and at rates not to exceed the rates of second-class hotels. We'll trust to Mr. Hershiser to take good care of all the bee-keepers that attend—if he doesn't do it as becomes a good "Buffalonian," we'll all just vote never to go to see him again. So, there!

◆

Cultivating the Home Market for honey will pay well this year, in many localities. The large city honey markets will be relieved of any glut just in proportion as a large or small amount of the crop is distributed in the home or local market.

Mr. S. N. Black, an old Illinois bee-keeper, told us that one year he took 10 pounds of extracted honey to a grocer, telling him to give it away to his customers, by asking them to bring a saucer or something else that would hold a small amount. He did so, and, as expected, of course every sample "tasted like more," and the result was that through that one grocer Mr. Black sold all the honey he had for sale at that time.

There is scarcely a family but what will buy honey, especially if there are children in it. All that is necessary in many cases is to simply let them have a taste of really good honey, and then they'll buy if they can at all afford it. And they *can* afford it when they are properly shown the value of honey.

The leaflet, "Why Eat Honey?"—which we mail at 30 cents per 100—will be a good thing to give out with every free sample of honey. It will help to interest people, and cause them to take a trial order of your nice honey.

Remember, it is ever so much better to take a less price for your honey near home—and *get* that price—than to ship it away to an overloaded market, and perhaps be compelled to take little or nothing for it, after paying freight charges, dealer's commission, leakage, breakage, etc. If you must accept a low price for your honey, any way, why not give your friends and neighbors the benefit? Surely, you will treat them as well as you would city strangers!

◆

The Convention at Buffalo—Aug. 24, 25 and 26—seems to grow more promising all the time. Let's see, we haven't said anything about it for a whole week in the Bee Journal, and as we have something new to tell, we'll out with it now.

Well, Mr. Hershiser—you all know him, but if you don't you will when you are in Buffalo—is just doing lots of advance work at that end of the line. Actually, he writes us that the "Hon. Edgar B. Jewett, Mayor of Buffalo, has signified his pleasure in making a welcome address to the convention of the United States Bee-Keepers' Union." He then adds: "I think you will be pleased with this announcement of so desirable an addition to our program." Certainly, we are delighted, and will be glad to arrange it so that Mr. Jewett can "welcome" the convention when it will best suit his convenience; but if he can be present in the evening of the first day (Aug. 24), we believe it would come in best. But he shall set his own time, for with all the G. A. R. "boys" to look after at that time, he'll be a busy man, sure enough.

Without first getting his consent, we will announce right here, that the Rev. Emerson T. Abbott, of Missouri, will respond to Mayor Jewett's welcome address, and Mr. Abbott will do it up in good shape, too. If you doubt it, you'd better be present and see for yourself. Mr. Abbott is a good speaker, and will not only represent splendidly the Board of Directors (of which he has the honor of being a member), but also the whole bee-fraternity of the land.

◆

Marketing a Large Honey Crop will be the principal work of a good many bee-keepers during the next six months. And unless great care and well-directed effort are put into it, not very satisfactory returns will be secured.

We called on one of the largest Chicago honey-dealers last week, and when askt what he would advise bee-keepers to do who had a large honey crop, he smilingly replied, "Sell it!" Of course, that's just the thing for them to do. But when we askt him, "How?" he didn't answer quite so promptly.

We learned that two carloads of the very finest California white comb honey was put on this market this month at 12 cents per pound. So, more than likely not over that price, if so much, can be expected from this market for this season's crop. Surely, if two carloads bring only 12 cents per pound on a bare market, it is very probable that when the large new crop begins to come in fast, not so much will be realized.

And right here is where bee-keepers need to be strongly cautioned. Don't rush your honey into a market already well supplied, and thus help to lower prices for yourself as well as those who will ship after you do. Here is a good rule to follow:

Never ship honey to a dealer without first writing him as to the condition of the market, and some idea as to what price can likely be realized.

Find out whether or not your honey is wanted at all in a certain market. We have actually known bee-keepers to ship their honey to a commission man who was overloaded, without first writing, and then expect to realize the top price. Of course if they didn't get the returns they expected, they berated the helpless commission man. Now, we hope none of our readers will be guilty of such unbusinesslike methods this year.

Investigate several markets before shipping, and find out where you can likely do the best. We think if bee-keepers are a little careful, and don't get in too big a hurry to realize on their honey all at once, even tho the crop is large, a fairly good price will be secured. But if you can anywhere get 12 or more cents per pound, net, for your white comb honey, and 6 or 7 cents for extracted in a wholesale way, we would say, "take it quick"—that is, if we were going to advise you. But, understand, we are not advising about that at all. Each must do as he thinks best, and then if later any blame is to be placed, he will know right where to lay it on.

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The Buffalo Programs are going out nicely at the 5-cent rate. When one thinks of the half-dozen bee-songs that go with it—and all for only 5 cents—why, he will of course send for a copy. Address the Secretary, Dr. A. B. Mason, Sta. B, Toledo, Ohio, who will mail you as many of the programs as you may want at price named. Better get a copy in advance of the convention, and learn the songs so that when you get to Buffalo you can help sing them. We expect Dr. Miller to be there to play them, and show us all just how they ought to be sung. But we can all learn the melodies before going, and be ready to join in the "swelling chorus" in the convention hall.

The Weekly Budget.

MR. E. C. HANFORD, a promising young bee-keeper of Bergen Co., N. J., made us a short call while in Chicago, July 20. He is getting along nicely with his bee-keeping venture.

MR. JONATHAN STEWART, of Winnebago Co., Ill., writing July 15, said:

"We are having a pretty good honey season—the first for four years."

MR. HARRY LATHROP, of Green Co., Wis., wrote us July 21, as follows:

"Our honey-flow is phenomenal. White clover is still holding out good. Basswood was of short duration."

MRS. A. A. SIMPSON, of Greene Co., Pa., wrote July 19:

"I have a very large honey crop, having taken, to date, 1,600 pounds of extracted, and 900 pounds of comb honey. I am selling the extracted at 12 cents, and the comb at 20 cents per pound."

MR. J. A. GREEN, of Lasalle Co., Ill., wrote us July 19, as follows:

"We have had a good yield from white clover, a fair one from basswood, and bees are working well and getting lots of honey from sweet clover."

MR. S. N. BLACK, of Adams Co., Ill., gave us a very pleasant call when in Chicago, July 22. Mr. Black is unfortunate again this year in that he has had no crop of honey. This is the third or fourth year of failure. But he has had many swarms, and expects to get a good crop next year. His apiarian faith, tho severely tried, is still strong. We trust he may be well rewarded in 1898.

MR. S. LAMONT, of Wabasha Co., Minn., writes that he "hopes to arrange so as to go to Buffalo in August." That's good. There ought to be 500 at that meeting. Wonder if Mr. Hershiser has secured a hall large enough! It would be a good joke if the bee-keepers would have to "swarm out" on account of too crowded a "hive!"

MR. ERNEST W. HALSTEAD, of Jackson Co., Miss., writing us July 16, said:

"Several days ago I sent you a sample of honey, I would like to have your opinion of. What is it from? It is the last of the crop here, and is not unusual. I have been told it was ti-ti, but that does not correspond with my observation, as I could find no ti-ti in bloom when it was gathered. Please answer in the American Bee Journal."

The honey was received all right, but as we never tasted anything just like it, we are unable to tell its source. It is a very pleasant flavored honey—much better than the samples we usually receive of Southern honey. It should give satisfaction to those who buy it for eating purposes.

MR. W. A. PRYAL, of Oakland, Calif., wrote us a very newsy letter (as usual, when he does write), dated July 15. It is so interesting that we give our readers a goodly portion of it:

MY DEAR MR. YORK:—We have been having very pleasant weather here, in fact, our July weather is better than the average. I am glad of this, as we have had so many Eastern folks here for the past ten days or so. We are not afraid of hot weather at this time, but of foggy or windy weather. The trade winds from the ocean usually blow at this time to quite an extent, and in San Francisco, where it is very sandy, clouds of dust and sand are driven into one's eyes. On this side of the Bay it does not make so much difference, as we have little sand and hardly any dust, as the streets are fairly well sprinkled and cleaned.

I had the pleasure, a few weeks ago, of meeting Mr. and Mrs. Cowan. I drove them about this city and our sister city of Alameda. They seemed much pleased with the city and the surroundings. I found them to be very excellent people. They told me that they intend to spend next winter in this portion of the State. It is Mr. Cowan's intention to visit the bee-ranches of the southern portion of the State this summer, then take a trip East.

On the 13th, I had the pleasure of meeting Mr. J. T. Calvert......On the 10th he went with one of the many excursions that were run out of this city and San Francisco to Santa Cruz. This gave him a chance to see some of the fine gardens and orchards that have made this and Santa Clara counties famous. He was much pleased with the trip. Tho he had only seen a portion of the central part of California, he told me that "California is a great State." Mr. C. had some samples of the new drawn foundation with him. It was the first of the kind I had seen. I was surprised that machinery is able to form such cells. The samples were really fine. Yours sincerely, W. A. PRYAL.

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

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Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offers on page 465.

◆

Now is the Time to work for new subscribers. Why not take advantage of the offers made on page 465?

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Two Eggs in a Cell—Bitter Honey.

1. In transferring a colony of bees from a box-hive into a Doolittle hive, I noticed in the brood-comb two eggs in a cell. I thought of a laying-worker, but I found a very large, nice-looking queen. She was not crowded for room. What was the cause? and what ought I to have done with her?

2. I took off some section honey, with combs white and nice, but the honey was so bitter I could not eat it. What can I do with it to make it good? TENNESSEE.

ANSWERS.—1. It is nothing so very unusual for a queen to lay eggs in a cell, especially when she first commences to lay. Only this week I had a young queen which laid two eggs in a cell, altho there were plenty of empty cells adjacent. There is nothing to be done in such a case but to let the queen alone.

2. I don't know from what source the honey came, but I doubt if you can do anything to improve it. Possibly, however, it may improve with age. Honey from onions is said to be very rank at first, but to grow better afterward, and some say that linden honey is too strong at first. But I'm afraid the bitter taste will remain.

Fastening Foundation in Sections.

How can I fasten foundation in sections so that it will stay? I use the thin, but it falls down when in the hive. NEBR.

ANSWER.—The method of fastening has much to do with it. If you will get one of the Daisy foundation fasteners you will probably have no trouble. With this machine a hot plate melts the wax, which is quickly prest against the surface of the wood, and is then held so firmly that the foundation pulls apart rather than to leave the wood. With the machine the work can also be done very rapidly, 500 starters having been reported in Gleanings as put in per hour by one who made a specialty of it. But if you do half of that you need not be discouraged.

Swarms and Their Management.

1. On page 438, you tell "Illinois" that 16 days after the first swarm issues he need not look for any more swarms. Correct, generally speaking; but you can put me on record as having the second swarm issue as late as the 19th day. Colony No. 89 swarmed June 17, and sent out a second swarm July 5—making 19 days including the first and last day, or, in law, counting the last but not the first day, 18 days.

2. I had three second swarms come off this morning, and alight together. Usually I cut out queen-cells and return second swarms, but two of these issued early, while I was absent from the yard, and I was not sure where they came from, so I took the queens away and let them return. Not desiring increase, but to secure all the honey possible, which would be the most advantageous, to return them in that way, or to have hived them—made a new colony—and then doubled up some of the light colonies in the fall? The three swarms united made a pretty large swarm. MINNESOTA.

ANSWERS.—1. Yes, such an exception may occasionally occur. From the time the egg is laid until the young queen emerges from the cell is 15 to 16 days, so 16 days after the old queen has left the hive all the young queens should be out of their cells, and there should be no further swarming. If weather should not allow swarming at this time, of course the bees could be held back, and the swarm might issue, as in your case, 18 days after the prime swarm. It is just possible, too, that in some cases there might be some delay in the maturing of the young queen. Again, it may happen that the bees swarm out at the time the young queen takes her wedding flight. To make the list of exceptions complete, it might be said that in rare instances the mother colony may build up so strong as to send out a swarm in the fall harvest, say two months after the first swarm, but I'm not sure whether this ever took place. It possibly might, however, if by some means the queen were killed and a new batch of queens reared, for, at such time, a strong colony in a good harvest would not be so unlikely to swarm.

2. I feel pretty sure the plan you pursued will give you more honey than to hive separately. The case might be different in the South, or in any place where there is a heavy flow late in the season, in which case each colony might have time to build up strong for this late harvest.

Taxing Bees.

1. Is it constitutional to tax honey-bees?
2. If so, what States levy a tax on them?
3. At what value are they assest?
4. Has this question been in litigation?
5. If so, what has been the decision of the courts?

Please do me the favor to answer these questions the best you can, so that I can go before the county commissioners somewhat informed. We are assest $2.50 per colony—the only county in the State that taxes the honey-bee. WASHINGTON.

ANSWER.—In answer to these several questions, which have come up at different times, I can only repeat that they are questions for a lawyer, not for a bee-keeper to answer. Each State has its own laws, and any lawyer or justice of the peace ought to be able to give the laws of his own State. Unless there is special provision made for the exemption of bees, they should be taxt in all States. I pay taxes on my bees as well as my horses, and at the same rate according to their value, and I see no reason why I should not. Taxes are paid to keep the machinery running that secures us protection of our property, and if a man should steal one of my colonies I would appeal to the law just as promptly as if he stole a horse. If I should refuse to pay the tax, the courts would promptly decide against me. Even if assessors in other counties failed to assess bees, that would make no difference—I would have to pay the tax all the same.

White-Eyed Drones.

I mail you to-day samples of white-eyed drones. About half the drones in one colony are like these. What do you think of them? INDIANA.

ANSWER.—It is nothing unusual to see occasional specimens of drones with heads of different colors—more strictly speaking, with eyes of different colors—but it is unusual to find them in a colony in such large numbers, and especially so strikingly different as these white ones. They present a very curious appearance, and the question arises whether they or the colony to which they belong are as vigorous as others. The deficiency of coloring-matter in the eyes is usually considered more or less a sign of constitutional weakness.

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year —both for $1.10.

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Bees and Honey, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages, and 245 illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold-lettered. Price, $1.00.

Langstroth on the Honey-Bee, revised by Dadant—This classic in bee-culture, has been entirely re-written, and is fully illustrated. It treats of everything relating to bees and bee-keeping. No apiarian library is complete without this standard work by Rev. L. L. Langstroth—the Father of American Bee-Culture. It has 520 pages; bound in cloth.

Price, postpaid, $1.25.

Bee-Keepers' Guide, or Manual of the Apiary, by Prof A. J Cook, of the Michigan Agricultural College.—This book is not only instructive and helpful as a guide in bee-keeping, but is interesting and thoroughly practical and scientific. It contains a full delineation of the anatomy and physiology of bees. 460 pages; bound in cloth and fully illustrated.

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Advanced Bee-Culture, Its Methods and Management, by W. Z. Hutchinson.—The author of this work is too well known to need further description of his book. He is a practical and entertaining writer. You should read his book. 90 pages, bound in paper, and illustrated. Price, 50 cts.

Rational Bee-Keeping, by Dr. John Dzierzon—This is a translation of his latest German book on bee-culture. It has 350 pages; bound in paper covers, $1.00

Bienen-Kultur, by Thomas G. Newman.—This is a German translation of the principal portion of the book called BEES OF HONEY. 100 page pamphlet. Price, 40 cents.

Convention Hand-Book, for Bee-Keepers. Thomas G. Newman.—It contains the parliamentary law and rules of order for Bee-Conventions—also Constitution and By-Laws, with subjects for discussion, etc. Cloth, gold-lettered. Price, 25 cts.

Thirty Years Among the Bees, by Henry Alley.—Gives the results of over a quarter-century's experience in rearing queen-bees. Very latest work of the kind. Nearly 100 pages. Price, 50c.

Why Eat Honey?—This Leaflet is intended for FREE distribution, to create a Local Market. 100 copies, by mail, 30 cts.: 500 for $1.25; 1000, $2.00.

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Alsike Clover Leaflet.—Full directions for growing. 50 for 25 cts.; 100 for 40 cts.; 200, 70c.

Apiary Register, by Thos. G. Newman.—Devotes two pages to a colony. Leather binding. Price, for 50 colonies, $1.00; for 100 colonies, $1.25.

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Bee-Pasturage a Necessity.—This book suggests what and how to plant It is a chapter from BEES AND HONEY. Price, 10 cents.

The Hive I Use, by G. M. Doolittle. It details his management of bees, and methods of producing comb honey. Price, 5 cents.

Dr. Howard's Book on Foul Brood.—Gives the McEvoy Treatment and reviews the experiments of others. Price, 25 cts.

Dictionary of Apiculture, by Prof. John Phin. Gives the correct meaning of nearly 500 apicultural terms. Price, 50 cts.

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Foul Brood Treatment, by Prof. F. R. Cheshire.—Its Cause and Prevention. Price, 10 cts.

Foul Brood, by A. R. Kohnke.—Origin, Development and Cure. Price 10 cts.

Practical Hints to Bee-Kee-Keepers—by CHAS. F. MUTH. Also contains a Foul Brood Cure and How to Winter Bees. 40 p.; 10 cts.

Bee-Keeping for Profit, by Dr. G. L. Tinker.—Revised and enlarged. It details the author's "new system, or how to get the largest yields of comb or extracted honey." 80 p.; illustrated. 25c.

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Lumber and Log-Book.—Gives measurements of lumber, logs planks; wages, etc. 25c.

Maple Sugar and the Sugar Bush, by Prof. A. J. Cook.—Full instructions. Price, 35 cts.

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Capons and Caponizing, by Dr. Sawyer, Fanny Field, and others.—Illustrated. All about caponizing fowls, and thus how to make the most money in poultry-raising. 64 pages. Price, 30 cts.

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Bee-Keepers' Directory, by H. Alley.—Latest methods in Queen-Rearing, etc. Price, 50c.

Book Clubbing Offers.

(Read Carefully.)

The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only ONE book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted see postpaid prices given with the description of the books on this page. Following is the clubbing-list:

1.	Langstroth on the Honey-Bee	$2.00
2.	A B C of Bee-Culture	2.00
3.	Bee-Keeper's Guide	1.75
4.	Bees and Honey [Cloth bound]	1.65
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6.	Dr. Howard's Foul Brood Book	1.10
7.	Advanced Bee-Culture	1.30
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35.	Silo and Silage	1.10
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Call on or address, J. Y. Callahan, Gen'l Agent, 111 Adams St. H. Thorne, C. P & T. A. Depot 12th and Clark Sts. 22

General Items.

Bees Had Done Well.

I have 90 colonies of bees, and they did well until the last two weeks. The first crop of alfalfa is all cut, and the second crop is just beginning to bloom now. I am well pleased with the Bee Journal, and wouldn't be without it for twice what it costs. S. P. Davis.

Otero Co., Colo., July 12.

Good White Clover Flow.

I have a colony of bees that has been dying for four months. Some of them die with their loads of honey on, and they are working well. I have six colonies now. There was a good flow of honey from white clover and raspberries. Basswood has just opened.

Charles A. Breese.

Rensselaer Co., N. Y., July 12.

Have Not Done Very Well.

Bees have not been doing very well here this season. Some of my first swarms are working in the supers, but up to yesterday and to-day it was very slow. There is some basswood bloom on the highlands, and buckbush is heavy with bloom, but the weather has been unfavorable for bees to work lately. It was too wet the forepart of the season—cold and wet the latter part of May, and the forepart of June I had to feed to keep the bees from starving. I had the first swarm June 14, and I usually get the first swarms in May. I have had them as early as May 17.

The weather looks better now, and the bees are working with a will, so I have some hopes of securing some light honey yet. S. LaMont.

Wabasha Co., Minn., July 16.

Feeding and Feeders.

Walter S. Ponder, in his little book entitled, "Busy Bees and How to Manage Them," gives the best method I have ever heard of. It is as follows: At night tilt the hive back and prop it up with a board; then pour the syrup on the bottom-board, and the next morning the hive can be let down again, as the syrup will have been stored in the comb. Don't be afraid of drowning the bees by pouring the syrup in at the entrance, as they will use the combs as ladders. To use this method the hives must have been in use long enough to be well propolized, otherwise there is some danger of the syrup leaking out. In the fall, when it is time to feed, I go through the apiary at dusk and prop up all the hives that require feed. I then go around with an old coffee-pot of syrup and pour about a gallon in each entrance. This I repeat two or three evenings according to the amount of feeding to be done. Feeding used to be the the most disagreeable and

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Has been selected by Commander-in-Chief Clarkson for the transportation of himself and staff to the G. A. R Encampment to be held at Buffalo, N. Y, Aug. 23rd to 28th. Tickets will be on sale Aug. 21st, 22nd and 23rd at the rate of $10.50 for the round trip.
This will afford an opportunity to the comrades now living in the great West and Northwest to once more visit the home of friends, and shake hands with those with whom they fought shoulder to shoulder in the great Civil War.
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H. THORNE, C. P. & T. A.
111 Adams St., Chicago, Ill. 21

provoking work about the apiary; but by this method I find it easy. I have tried feeders regulated by thumb-screws, Mason jars with perforated lids, bread-pans filled with straw, or covered with cheese-cloth, etc., but they are all too fussy to suit me. The former have a fashion of leaking and letting the syrup run out of the entrance, while the rest are dauby and drown the bees. The Boardman entrance feeder has none of these faults, and is the only feeder I use when a feeder is *required*; but Pouder's method given above is ahead of them all, as it costs nothing, saves time, is more cleanly, and does not allow the heat of the cluster to escape as do feeders which are placed above the cluster.—EARL C. WALKER, in Gleanings.

◆

Have Done Moderately Well.

Bees have done moderately well, but are checkt at present by drouth.

Keep the Bee Journal booming. I am lost without it. R. H. HARKEY.

Ellis Co., Tex., July 19.

◆

Bees Doing Fine.

Bees are doing fine this year. There is any amount of white clover, and prospects for a fall flow are good.

I put a drone-trap on one of my hives at noon, and by 5 o'clock, p.m., I had between 350 and 275 drones in it. Is not this an unusual large number for one colony? P. D. WINE.

Cherokee Co., Iowa, July 20.

◆

Bad Year for Bees.

We have had a very bad year for bees in this section. I have taken off only 100 pounds of comb honey from 22 colonies. Heavy rains in the spring followed by a drouth is the reason. I had only three swarms from 19 colonies.

A. W. FAIRBURN.

Santa Rosa Co., Fla., July 19.

◆

Not Much White Clover Honey.

I like to read all the reports from bee men and boys; some are nice to read, some make me have a pain. I will get some honey this season. White clover has been very plentiful, but not very rich in nectar. It was a long time before a bee was seen on it, but later they put in their time pretty well. Now, altho there is considerable yet in bloom, very little honey is coming in. I have a little over 100 colonies from 56, spring count. I have a few finisht supers of honey, and some extracting frames full. I am changing my old hives to the Langstroth style.

I expect to sell my honey at and near home, and will use some leaflets to try to create a greater demand. There will be considerable loose farmers' honey hereabouts, and I am a little fearful about prices; yet I don't believe in advertising the fact before hand, for we may not get much more honey than we have. W. SPENCER.

Macoupin Co., Ill., July 21.

◆

Sections and Section Holders.

I have an idea or two that I feel will interest bee-keepers in regard to width of sections, and section-holders. I use sections 1 15/16 inches in width, because they fit my 10-frame Langstroth

Foundation —Sections— Hives or any Other Supplies.

If you are in a **rush,** send me your order. I sell **the best only,** and fill orders promptly at LOWEST PRICE. **Beeswax wanted in exchange.**

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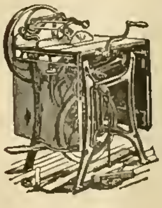

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E. L. CARRINGTON,
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Philadelphia, Pa., Aug. 4 to 7.
The Nickel Plate Road will sell tickets for this occasion at one fare for the round trip. Tickets will be available Aug. 2nd, 3rd and 4th. Good to return leaving Philadelphia up to and including Aug 9th
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That will keep Hen's Eggs perfectly through warm weather, just as good as fresh ones for cooking and frosting. One man paid 10 cents a dozen for the eggs he preserved, and then later sold them for 25 cents a dozen. You can preserve them for about **1 cent per dozen.** Now is the time to do it, while eggs are cheap.

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28A **Edw. E. Smith, Carpenter, Ill.**
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Box 138. Ridgeville, Ind.
48Etf *Mention the American Bee Journal.*

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J. F. Michael, Greenville, Ohio.
Please mention the Bee Journal. 14Etf

Queens I have 500 Untested 3 or 5 Banders—45c. each. Tested 3 Banders 70c each. They are Fine, Large Queens, and free from all disease. This is a Money Order office Write for wholesale prices. DANIEL WURTH, Falmouth, Rush Co., Ind.
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22Atf CHAS. MONDENG, Mgr.
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In Chicago vicinity, in exchange for Art Work—Fine Pictures, framed or not framed—at wholesale ratings. Address, **C. P. C.**, care of this Journal.

ORDERS filled by **return mail** for the choicest Untested Italian Queens at 60c each. Can furnish 1, 2 and 3 fr. Nuclei. A. I. ROOT CO.'S SUPPLIES. Send for 36-page Catalog.
Jno. Nebel & Son, High Hill, Mo.
Mention the American Bee Journal. 4Atf

H. G. Quirin, of Bellevue, Ohio
—QUEEN-BREEDER—

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For Style and Finish they can not be surpassed.

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This cut shows our $5.50 Harness which we make a specialty of and
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BARKLEY
$152. CABRIOLET

Simplicity hives, and give good room for a key-board. I use half of them open on three sides, putting the wide or closed sides at the ends of the frames, thereby forming a case at no cost, that answers every practical purpose of Danzenbaker's hive. I make the frames of lath to hold 8 sections 4¼x4¼, and as the sections form an outside case, they adjust themselves to any width of sections and give a bee-space above and below. I use the middle two sections open on all sides, because it gives the bees openings to move through the case in all directions.

Now as to the honey-dew that was mentioned as falling, out in Idaho. It makes me tired to hear a bee-keeper speak of a heavy fall of honey-dew, unless he simply means that it falls from the aphis.
URIAH STEPHENSON.
Henderson Co., Ill.

◆

Fair Crop—No Basswood.

We have a fair honey crop, nothing extra. Basswood didn't yield here this year.
E. S. MILES.
Crawford Co., Iowa, July 15.

◆

The Season in Vermont.

This has been one of the worst springs for bees in Vermont that I ever knew. As a rule bees wintered finely, and were breeding up well in the spring until the cold weather came. It rained a great deal of the time, and when it did not rain it was so cold they could not work any, so they secured little or no honey from fruit-bloom.

All through June strong colonies were killing their drones, and were on the verge of starvation. Clover opened 15 days later than it did last year, therefore I had to resort to feeding to keep the colonies alive, but since July 1, and the warm weather commenced, white clover opened very fast, and now the bees are booming and gathering honey the fastest they ever did from clover, and should this weather continue we will secure a good crop of clover honey yet.

I am experimenting along different lines with the bees, and may report the results later.
A. W. DARBY.
Grand Isle, Co., Vt., July 12.

◆

Keeping Bees in North Dakota.

Our bees have not done as well this season as last. To begin with, we had high water in the spring and they had to be taken out of the cellar before the weather was favorable, and in consequence many colonies were greatly reduced in numbers. We also had an unusual amount of wind and cold weather. There were several days in succession in which the bees could not be out. In the last two weeks it has rained very hard at times, and we have also had some very hot weather. White clover is now at its best, and some honey is being brought in, but not as fast as we would like to see it.

Last season we had 18 colonies, spring count, increast to 40, and extracted 1,400 pounds, mostly all very good honey, which we sold in the home market. Our first swarm came off June 15, and we began extracting on the 26th.

So far this season we have not had a swarm, nor have we extracted any, but some are getting strong in numbers, and are putting in some surplus which we expect to take off this week.

We were the first to keep bees in this locality, and have started four others, three of whom are doing well. Our friend, Dr. Richter, lost all of his during the winter, but we believe that the Doctor has grit enough to try it again.
JOHN MONSON.
Cass Co., N. Dak., July 11.

◆

Bees Did Well.

Bees have done well so far this year. My best colony has stored 140 one-pound sections of honey. The queen is a cross between the Carniolan and Italian races.
L. HIGHBARGER.
Ogle Co., Ill., July 17.

◆

The Nickel Plate Road

Will sell excursion tickets to Chautauqua Lake and return on Aug. 2nd. Tickets good on any of our through Express Trains Unexcelled Dining Car service Day coaches in charge of colored porters Try a trip over this line and be convinced of the superior service. For full information call on, or address, J. Y. CALLAHAN, Gen'l Agent, 111 Adams St., Chicago, Ill. Depot 12th and Clark Sts. 22

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A few 25-pound boxes of Van Deusen Thin Super Comb Foundation at $11.00 per box. Be quick if you want a box of it. Address,
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Golden Beauties and 3-Banded
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Untested, 50c; Tested, 75c. Safe arrival guaranteed. Address,
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1. Foul Brood, by Dr. Howard	25c
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◆

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

◆

Illinois.—The annual meeting of the Northern Illinois Bee-Keepers' Association will be held at the Court House in Freeport, Tuesday, Aug. 17, 1897. All are cordially invited.

B. KENNEDY, Sec.
New Milford, Ill.

◆

See the premium offers on page 465!

HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., July 20.—Some few lots of the new crop of white comb has come on the market and sold at 12c. Lots not strictly nice may fail to bring this figure. Very little sale for extracted honey of any kind. Prices range from 5@6c. for white, 4@5c. for amber, and dark 3½c. Beeswax steady at 26@27c.

San Francisco, Calif., July 14.—White comb, 1-lbs., 7-9c.; amber comb, 4-6c.; extracted, white liquid, 4½-5c.; extracted, light amber, 3½-4c.; dark tule, 2¾c. Beeswax, fair to choice, 25-26c.

Cincinnati, Ohio, July 22.—There is a fair demand for extracted and comb honey. We have disposed already of a number of arrivals of fine quality. We quote 11½@13c. as the range for choice comb honey; 3½@6c. for extracted. Demand is fair for beeswax at 22@25c. for good to choice yellow.

St. Louis, Mo., July 5.—Fancy white, 12@12½c.; No. 1 white, 11@11½c.; fancy amber, 10@10½c; No. 1 amber, 9@10c; fancy dark, 8½@9c.; No. 1 dark, 7@8c.; white, extracted, 4¾@5c; amber, 4¼@4½c.; dark, 3½@4c. Beeswax, 25½@26c.

Movement of honey is very light; the weather too warm, and prices are nominal. Very little selling.

Indianapolis, Ind., July 5.— Fancy white 10@12½c.; No 1 white, 9@10c; white, extracted, 4@6c. Beeswax, 25@27c.

Big crop is being secured in this State. No demand for other grades than those mentioned.

Albany, N. Y., July 5.—Fancy white, 11@12c.; fancy amber, 7@8c.; fancy dark, 6@8c.; white, extracted, 5c; dark, 4c.

But very little is doing in honey this month. There is a small stock of inferior comb honey on the market, and quite a little extracted. Bees are said to be doing nicely in this section.

Buffalo, N. Y, July 6.—Fancy white, 9@10c.; No 1 white, 8@9c; fancy amber, 7@8c.; No. 1 amber, 6@7c; fancy dark, 5@6c.; No. 1 dark, 4@5c.; white, extracted, 5@6c. Beeswax, 23@28c.

No demand now for either new or old honey, a t o it can be sold, of course, at some price.

Milwaukee, Wis., July 6.—Fancy white, 12@13c.; No. 1 white, 11@12c; fanch amber, 9@10c.; No. 1 amber, 8@9c.; No. 1 dark, 5@7c.: white, extracted, 5@6c.; amber, 4½@5c.; dark, 4@4½c. Beeswax 26@28c.

The supply of honey is ample for all demands, and some old stock is yet on hand that is very hard to move, as quality is poor. The fancy is nearly all gone. Extracted moved some during the last week. Small receipts of new quality common. We think our market will be in good order for shipments of new crop. We hope there will be a markt improvement in quality and package, all along the line.

Kansas City, Mo., July 7.—Fancy white, 13-14c.; No 1 white, 1 -13c.; fancy amber, 11-12c.; No. 1 amber, 10-11c.; fancy dark, 9-10c.; No. 1 dark, 8-9c; white, extracted, 5-5½c.; amber, 4½-5c; dark, 3½-4c. Beeswax, 30c.

New comb honey has begun to come in, but no new extracted. The demand is not large on account of fruit and vegetables being so plentiful.

Detroit, Mich., July 7.—Fancy white, 10-11c.; No 1 white, 9- 0c.; fancy amber, 8-9c; No. 1 amber, 7-8c; fancy dark, 6-7c.; white, extracted, 5 6c.; amber, 4-5c.; dark, no sale. Beeswax, 25-26c.

There is some old honey in the market and new is arriving.

Boston, Mass., July 6.—Fancy white, 13c; No. 1 white, 11-12c.; white, extracted, 7-8c.; amber, 5-6c. Beeswax, 26c.

Honey is selling slowly now, but this is expected during warm weather. Beeswax is practically out of market as far as supply is concerned, but the demand is good.

New York, N. Y., July 6.—Our market is bare of comb honey, and some demand for white at from 10-11c. Market on extracted is rather weak; demand slow of late, and arrivals plenty. We quote: Southern, average common grade, 50c per gallon; better grades from 55-60c.; California light amber, 4½-4¾c.; white, 5-5½c. Beeswax remains steady at 26-27c.

Philadelphia, Pa., July 10.—Fancy white, 13@14c.; No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 8@9c; No. 1 dark, 7@8c. Extracted, white, 5@6c.; amber 4@5c.; dark, 4c. Beeswax, 25c.

New honey has commenced to arrive. Very little call at present. To-day is very dull. Prospects are for very low prices. Biggest honey crop in 10 years.

Minneapolis, Minn., July 10. — Fancy white, 12@14c.; No. 1 white, 11@12c.; fancy amber, 10@11c; No. 1 amber, 9@10c; fancy dark, 8@9c.; No. 1 dark, 7@8c. Extracted, white, 6@7c.; amber, 5@6c.; dark, 4@5c. Beeswax, 24@27c.

Demand for extracted honey is nominal, but at fair prices. Comb very slow on account of warm weather.

Cleveland, Ohio, July 7.—Fancy white, 12½c.; No. 1 white, 10-11c.; fancy amber, 9c.; fancy dark, 6-7c. Beeswax, 28-30c.

Honey is moving very slowly; no demand for it whatever.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & CO., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN,
120 & 122 W. Broadway.

Kansas City, Mo.
C. C. CLEMONS & CO., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & CO., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
A. B. WILLIAMS & CO., 80 & 82 Broadway.

St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.
S. H. HALL & CO.

Milwaukee, Wis.
A. V. BISHOP & CO.

Boston, Mass.
BLAKE, SCOTT & LEE, 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave

Albany, N. Y.
CHAS. MCCULLOCH & CO., 380 Broadway.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central Avs.

Queens and Queen-Rearing.—If you want to know how to have queens fertilized in upper stories while the old queen is still laying below; how you may *safely introduce* any queen, at any time of the year when bees can fly; all about the different races of bees; all about shipping queens, queen-cages, candy for queen-cages, etc.; all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know—send for Doolittle's "Scientific Queen-Rearing" — a book of over 170 pages, which is as interesting as a story. Here are some good offers of this book:

Bound in cloth, postpaid, $1.00; or clubbed with the BEE JOURNAL for one year—both for only $1.75; or given free as a premium for sending us *two* new subscribers to the BEE JOURNAL for a year at $1.00 each.

◆

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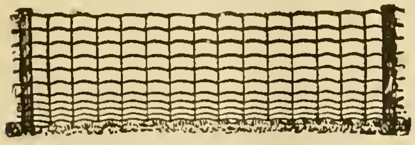

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Contributed Articles

Bee-Paralysis Carried by the Queens.

BY DR. E. GALLUP.

In Dr. C. C. Miller's department on page 361, is a question which suggests the heading, "Perhaps Bee-Paralysis." In getting queens from many different breeders I have run across one case of bee-paralysis. The queen came from Ohio. I liked the appearance of the queen and her workers, and altho I saw many dead bees in front of the hive I did not pay any particular attention to the cause until after rearing some five queens from her, and losing them all within a short time after they commenced producing eggs; and one of those queens was hatcht in my observation hive, so I had a grand chance to observe her actions until she swelled up and died with bee-paralysis. I was looking at her when she gave her last kick. I got rid of the disease entirely by introducing healthy queens from healthy colonies.

Now for my reasons: You will understand that I have dabbled in fancy poultry and pigeons; have been all through the mill, with canker, swelled head, etc., and for the past five years I have had no more of it. I have taught the cure to others, and they do not have it now. It used to be a terrible pest here, and is yet with some breeders. We had any quantity of "sure cures," and still the mortality was two-thirds of all the chicks hatcht in many yards. I paid $5.00 for a sitting of eggs from a fancier that had swept the premiums at nearly all the fairs in the State. I had a good hatch, but one egg had a full-grown chick in the shell, and I helpt it out with as beautiful and perfect a swelled head as I ever saw. The others all died with swelled head, except two, and from those two I always reared swelled heads to my heart's content.

I obtained a pair of white fantails from Indiana, also a pair of nuns from Santa Barbara. From neither of those pairs did I ever rear a pigeon, altho I experimented with them for two years. I would hatch their eggs under good, healthy, common pigeons, yet all died with canker from a few days to three weeks old.

Mr. F. M. Gilbert—the great white fantail pigeon breeder in the United States—had the same experience with canker in his pigeon loft. The conclusion is with poultry, pigeons, etc., that the disease is transmitted in the egg. The cure is, never breed from diseased fowls, altho they may have apparently been cured. The disease is there all the same.

Acting on that theory, we have a sure cure for fowls, and why not for bee-paralysis? It has certainly workt in my case. I am aware that one swallow does not always make a spring. Cutting the heads off of sick fowls instead of keeping a hospital and using this and that "sure cure" medicine, is the very best remedy. Orange Co., Calif.

⁂

The "Detestable Bee-Space" Again Arraigned

BY "COMMON-SENSE BEE-KEEPING."

On page 321, Mr. W. Z. Hutchinson reviews my former article on "the Detestable Bee-Space," which was given on page 259, and to me it seems that his article partakes more of the style of throwing dust in the air and raising a fog than it does of sober reason. I am glad, however, that it comes from a man whom I have learned to respect so highly, and I hope he will be assured of this to a sufficient degree not to take unkindly what I may now say in showing the weakness of his ground.

In my former article I asserted twice that the bee-space was "handy," and I used it many years because it was handy, and I will venture to say that Mr. Hutchinson nor any other bee-keeper in the world ever used it for any other consideration. But suppose that I should admit further, that it is universally used (which it is not), would all of that go to prove anything against the points at issue, which are, that the bee-space is a damage to the bees in several ways? Should we fear to express an honest conviction of the right, tho all the world should be arrayed against us? If so, than the "Common-Sense Bee-Keeper" was not built rightly.

There are many things that have nearly universally come into use which are a damage to those who use them, and a curse to the world; such as popular vices in all their forms, but would their universality prove them to be a benefit to anybody? When I saw that the bee-space was costing me, in the loss of bees and honey, more than it was worth to me as a convenience, I expelled it from my system of management. I am no box-hive man, for I never owned a box-hive in my life, but I can see that in some respects it is superior to some of the clap-trap inventions that some claim to be improved hives, or bee-palaces. I unfurl my flag over the following points without fear of successful contradiction, namely:

The bee-spaces in the hive above and around the brood-frames are an injury to apiculture. First, in the wintering of bees, second, in booming the colony in the spring; and, third, the early storage of surplus honey in the sections. All of which I have more reasons for believing than it would be wise to expand upon in this article.

I cannot see, in Mr. Hutchinson's attack on my article, that he uses the slightest argument to disprove my claim, but he does say several things that would be regarded in logic as irrelevant and misleading, which I will endeavor to dispel by turning on a little more light.

He says, "How any one who has had practical experience with bees could think of such a thing......is beyond my comprehension." But he was the man who thought of it, and not I, or he would not have written it, for I don't do as he supposes, and therefore I never had occasion to think of it till I read it from his pen. And, furthermore, I am not to blame for the limit of his comprehension, of which he speaks. And I presume that the writer, when he was a boy, had to do with bees long before Mr. H. was born, and I should be allowed to remark that such expressions of affected amazement should be avoided in candid argument, for while they may appeal to the popular prejudice of the masses, and excite the virulence of superficial readers, they have no weight as argument in the scale of real merit.

I stand for the natural and normal warmth of a colony of bees in a properly protected bee-hive, which is the heat generated by the bees under circumstances that will enable them to resist to the greatest extent practicable the fluctuations of the external temperature. And this should be encouraged by framing our hive devices as nearly as possible to come in touch with the flexible laws of the bee's nature. I believe, from years of careful study of the bee's nature and experimentally handling of them, that my present hive (which I am *not* manufacturing to sell) contains more points in perfect harmony with the better features of apicultural progress and the necessities of the bee's instinct, than any other hive that I ever owned, and I think that I have used, on a small scale, the majority of the leading kinds of hives known in America.

My present hive opens up as easily, as far as I can see, as the hanging frame hives that I have used, and with my method of manipulation I find them less susceptible to bee-glue. The brood-chamber is invertible as a whole, or divisible at pleasure. The frames are invertible, reversible, or exchangeable, with perfect ease. It is happily and equally adapted to sections, or to an upper set of frames for extracted honey. The size of its frames make it superior for the development of nuclei or queen-rearing. And as a shipper, it is as perfect as the Heddon hive, and more easily made by half. In fact, it comes more nearly to the idea of an all-purpose hive than anything else that I ever read about. And yet with all this, its construction is in perfect harmony with the demands of the bee's nature, as it possesses the compact solidity of the box-hive.

Mr. Hutchinson inquires, "If the heat rises and escapes from between two frames, pray where does it go to?" And answers his own question, saying, "Into the adjoining space, of course—where else could it go?" etc. This is a very fallacious kind of reasoning, and he asserts what he cannot prove by logic or experiment; for heat or vapor, if set free, will not play the diving dodge over and between the frames of a bee-hive as Mr. H. assumes, and he must know it. But it is possible that he may think that we may not know where it goes to, and so I will explain for his benefit by answering his question beyond the possibility of being misunderstood.

Anybody who has studied the first lessons in natural philosophy knows very well that the tiniest mote in the universe, if set free, will rise if the surrounding particles of matter are more dense, or heavier than itself; on the same principle that a piece of wood floats up in water, because the water being heavier than wood pushes the wood up. And the same law or principle works just the same with the air in the bee-hive as it does outside. The cold air being heavier settles in the bottom of the hive, and pushes the warm air up to the top of the hive, working just the same through the cluster of bees as it does elsewhere. And, therefore, the warm air in the cluster (which is largely composed of the warm, moist breath of the bees) will rise from among them to the top of the hive, while the cold air from beneath works up among the bees to take its place. Then the warm air, which is continually being pusht up and out from among the bees will gently press the other warm air that went up there first over through the bee-spaces to the sides and corners of the hive.

Now let us follow that warm air in its circuit, while we remember that one of the most active laws in Nature is the tendency to an equalization of temperature between everything that comes in contact, which now comes in force in a prominent way as follows:

Whenever the weather is cold, or even cool, then the warm air confronts the colder air in the sides and corners of the hive, where it doesn't stay warm, as Mr. H. seems to imply. But while it cools, much of the moisture which it contains condenses into drops of water, and settles on whatever it touches first, like the falling of dews. Then that warm air, having become colder, takes its turn to settle away to the bottom of the hive, and comes around under the bees, seeming colder and damper as it goes, to work up among them again to absorb their heat and carry it up and away again and again by the same chilling process.

I omitted all this minutia before, because I thought that every reader of the American Bee Journal would understand what I meant by the word "condense," and I might leave this out now, and save precious space in the paper if I had not been called up by my opponent to explain.

But I add that besides this condensing of the warm breath of the bees, which creates a damp current of cold air through the cluster, as explained, to depress the comfort of the bees, the mischief doesn't stop there; for in cold weather that same moisture turns to frost (just as it does on a bedroom window from the breath of human beings) until sometimes the bees are actually surrounded by thick frost, as might be seen in almost any hive in cold winter weather.

About eight years ago, as far south as Hancock county, W. Va., during some cold nights in autumn I placed glass over several colonies which I had surrounded with the usual bee-spaces, then a blanket on the glass, and then a top board on the blanket. In the morning I found that over the close cluster in the center of the hive the glass was actually dripping with water, which was falling back on the bees, while the whole glass was coated on the under side with steam from the condenst breath of the bees, and in the corners of the hive were unmistakable signs of frost.

Now if anybody will, next winter, let a hive remain on the summer stand with the bee-spaces all open above and around the brood-frames, and then along toward spring look in on the bees some cold morning after a few days of sharp cold weather, I will guarantee that he will turn away from that bee-hive with thoughts in his mind about the bee-space, that he never had before.

What Mr. Hutchinson says near the bottom of the first column of his article, about the "compact cluster and the heat rising," actually goes farther to strengthen my position than it does to defend the bee-space; but he asks, "What difference does it make?" and I think that I am showing that it makes a good deal of difference. What a slaughter of bees he does make in his imaginary bungling while placing sections on my hive which he has never handled nor seen, no, not even a picture of it. But I can respectfully say that those extravagantly absurd inconveniences which he pictures out, of crushing bees, and tries to force them upon me as features of my method, are not necessarily true in the Common-Sense system of management, as those troubles are not necessarily involved by the absence of the bee-space. I slide my section cases on smoothly lengthwise of the top-bars of the frames, which are level with the tops of the hive-body, and if it is rightly done, there is no need of crushing bees in the operation.

I had used the bee-space for many years before I made a bonfire of every frame I had left. And is it reasonable to suppose that I would have cremated them, and put in their places a new frame, a little different than anything that I had every read about, unless I was fully convinced that the new frame was far superior to the old bee-space frame? Concerning my present method, as compared with my former, I can say to Mr. H., as Paul said on another subject, "and yet show I unto you a more excellent way."

Those words near the end of his article, about "daubing up everything with bee-glue," and the "big job of cleaning," are expressions far too strong to be justified by the facts in the case. If he places no limit on the word "everything," its meaning is infinite, and I don't believe that my bees have been daubing up "everything" to that extent. If I have been sending them through creation daubing up everything, including the sun, moon and stars, that may be the reason why they are none too lavish in the amount of daubing that they do at home; for, you see, they wouldn't have daub enough to hold out, and be able to do more than justice to things at home. But perhaps he is pardonable for those expressions, and also for the assertion—"with the bee-space all this is avoided"—needs substantiating, for I have yet to learn it if the bees ever fill their sections without calking all the cracks they can find near their work, which is all they have ever done in my hives, and a stiff piece of hoop-iron ground like a chisel, and pusht under the sections will easily separate them from the frames, and the cleaning up in one case will not differ very much from the other, leaving the appearance about the same in both cases. And I am further inclined to believe that the weaker the colony the less it is apt to deal in bee-glue and burr-combs, and that may be one reason why some folks are bothered so little with such things.

But he virtually admits the perniciousness of the bee-space in recommending to dispense with it for wintering the bees, by putting a blanket or cushion flat on the tops of the hanging frames, and then to flop the hive over and jam something down in at the ends of the loose frames to stuff up the bee-space there. Just imagine how those hanging frames would flop around in the operation and mash bees by the handfuls! But if the bee-space is such a blessed thing to defend and keep, why recommend such harsh measures for the purpose of getting rid of it? Can't he see how he throws the weight of his argument on my side of the scales?

The Common-Sense Method of Bee-Keeping is now rendering me in my yard proof of its merits far beyond my most sanguine expectations when I began its development several years ago. Never did I have bees to boom themselves without feeding in the spring, and seem so comfortable, and work so early and late in the day as they have done ever since I put them in my new Common-Sense Hive, and I infer that it is because so many of them don't have to stay at home all day to breathe up heat enough in the hive to keep the babies from having the ague.

Like Paul, again, "I have many things to say unto you, but ye cannot bear them now," but if circumstances should render it favorable I could be induced to give strong reasons for believing that the bee-space in the modern hive figures largely among the causes that favor the conditions which develop spring dwindling, bee-paralysis, nameless disease, and progress finally to that which is the worst of all, and the end of all—FOUL BROOD. Pennsylvania.

P. S.—I had sealed the above article for the mail when I received the Bee Journal for June 10, containing that powerful argument on the "Real Cause of Foul Brood Among Bees,' the proof of which I had derived from observation during the past few years in reading, and knowing where there had been a few cases of foul brood in western Pennsylvania, and by carefully noticing what had occurred to the bees prior to it, had forced me to the conclusion that brood in the comb, exposed to die, was the antecedent cause of all the trouble after it had progrest through several stages. And I had noticed that the undue circulation of air through the bee-hive (in cold spells), induced by the bee-space, would often force the cluster to contract and expose their brood to die. And while I primarily blame the bee-space for encouraging such contraction, it is easy to see that a sudden depletion of the colony from any cause would accomplish the same end.

⁂

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

Honey as a Medicine and Food.

BY DR. J. M. HICKS.

It has again fallen to my lot to tell what I know about the true value of honey as a medicine and food; also its many uses in the household. It is long since it occurred to me that if we only understood more perfectly the real value of this—one of Nature's most wonderful and best remedies known—in the many ills of both man and beast, it would be more highly appreciated and used by the present generation. It was of much value and used by our forefathers and foremothers as a remedy in making plasters for dressing boils and carbuncles in their incipient stage; it has a wonderful effect in "bringing them to a head," and preparing the way for a cure. It was also well known by many of the ancients as a medicine for colic, if administered in medicinal quantities at a proper time; while it is also well known that, to some, it will produce colic if taken in too large a quantity, and in others it acts as a splendid carthartic and diuretic, giving tone and strength, as well as purifying the blood. But let me say it should be given in homeopathic doses.

What I have said of honey as a medicine is applicable to pure extracted honey free of the combs or wax—not "strained" honey, but a pure article of extracted honey, which, of course, must vary in its medicinal effects as it does in its quality, owing to and depending upon the flora from which it has been gathered by the bees.

My space and time at present will not allow me to enumerate the various flowering plants which produce the best honey as a medicine, but suffice it to say there is a great difference in the medical properties of honey, and it should be carefully selected as well as fully understood by those who prescribe or use it in their afflictions. I will only mention a few of the many troubles that the human family is heir to, for which honey is a sovereign balm.

First on the list is a severe cold, which is too often the affliction of our children, and many older persons are frequently troubled with colds as well.

It is also a grand remedy in granulated sore eyes—nothing better in the whole range of the materia-medica, and for quinsy it has few if any equals if made into a proper gargle and used as it should be.

Chronic or old sores are greatly benefited if honey and rye-flour is prepared and put on as a dressing or plaster. It would be well for those who may have occasion to test its good qualities to do so, and, my word for it, you will not regret having done so.

I am quite sure, when I tell you, that honey as a sweet or food, has no superior, if an equal, in the civilized world, and as such it has more true admirers than any other saccharine matter. It is used by all who can afford it in preference for sweetening fruits when cookt for table use. It is a well-known fact that honey is by far preferable in sweetening pies. When made of fruits or rhubarb they have a better flavor than sugar imparts to them.

Honey is useful in sweetening cookies. Many kinds are made for family use with honey, well suited to the taste of an epicure.

I have known and seen some of the most beautiful and best of vinegar made from honey, which if made as it should be will by far excel the so-called cider and acid vinegars of the present day.

Let me assure you that I have no sinister or personal motive in extolling the good qualities of honey, either medicinally or for domestic uses, for surely I have none to sell or to offer to the markets, but I have to purchase all I use in preparing cough and other syrups. But I must say, it too frequently happens that I find too much syrup of sugar mixt in some of the extracted honey offered in our markets. I trust the members of this society will try in some way to have our State legislature pass such laws that will ultimately put a stop to the nefarious habit of adulteration of any and all foods, and honey to be especially included, under a penalty of a heavy fine and imprisonment. I would also recommend confiscation of the same, when so placed on the market or offered for sale.—Read at the Indiana Bee-Keepers' Convention.

⁂

Bees Hanging Out—New Drawn Foundation.

BY ERNEST R. ROOT.

I had a vague idea that, if we were to make sure that the bees were never crowded for room, in the first place, and the hives were properly shaded, with good-sized entrances, there would not be any of this hanging-out; and the result of careful experiment and observation this season seems to show that this is true. At our out-yard there has been no hanging-out, but quite a little of it at the home yard. The work in the home apiary at the beginning of the flow got behind. At the out-apiary I made sure to keep pace with the bees. As there would be no one present to look after swarms, it was decidedly necessary that the bees should not get into the *habit* of loafing. There was no loafing here, and only one swarm, that came out several times while I was away.

As every one knows, hanging out and sulking at the front of the hives shows that something is not quite right. A colony in the height of the honey-flow should have no loafing or sulking bees. I told the boys I did not want to have one hive with its bees hanging out in front, even at night. They did not believe that the poor bees could *help* coming out when the nights were so hot; but I noticed that stronger colonies in the same apiary were busy at work in the sections, without a loafing bee in front. I said to myself, "We must make these other chaps (the loafers) get down to business like the others."

As I found years before, so this year, smoking them in did no good. They would come out again just as soon as they got through "rubbing their eyes." Giving them frames of foundation and plenty of room sometimes answered, but generally they would cluster out even then. Furnishing the bees a good deal of shade helpt somewhat. Giving them very wide, deep entrances sometimes caused them to go into the hives and go to work.

This hanging out is indicative of swarming. Early in the season, perhaps the bees are a little crampt for room, and they get into the "habit" of loafing; and this habit, once establisht, is hard to break up; or perhaps the entrance is too small, or the hive not properly shaded. Any one of these conditions may start the habit, and the only way to break it up is to make the bees *think* they have actually swarmed. I am satisfied that, while the bees are loafing and hanging out at the entrance, they are waiting either for the queen or some of their number to start a swarm forth.

There were several of our colonies at the home yard that seemed to be very stubborn. Two of them would hang out in spite of the fact that I personally alternated every one of their frames of brood and honey with frames of foundation. The *habit* had been establisht, and, no matter what I did, they *would* hang out. Finally, the thought occurred to me to take the hive away entirely (a big two-story chaff one) and put in its place an entirely different hive—a single-walled Dovetailed made up of three stories. This was done, and the frames put into the new hive. The greater portion of the bees were shaken out in front, and were made to crawl in at the entrance. The bees went to work, and there was no loafing from that time on. Another hive was treated in a like manner with the same result.

I am fast coming to believe that, in a well-regulated apiary, there should not be a hive with bees hanging out in front. Just think of the waste of over half a colony loafing and doing nothing for days until they swarm, and a super or two of sections without a bee in them! We know perfectly well that, when bees swarm, they will go to work—that is, providing they are put into another hive, and their mania satisfied.

In the foregoing I have enumerated a number of conditions that cause bees to hang out; but one I did not mention; namely, that of queenlessness. Several of our good, strong conlonies were working nicely until we took away their queens. They immediately began to sulk, and to hang out. They knew something was wrong, and I think they had a sort of idea if they could once swarm, all would go well again. So they thought they would hang out. When these same colonies were supplied with a queen, the loafing ceast, and the bees went to work.

I have been watching the matter very narrowly, and I have about come to the conclusion that, for our locality, we do not want a colony with a caged queen or one queenless in the hive. Bees seem to do very much better when there is a queen laying, and brood in all stages; yet I recognize that some good apiarists succeed well with caged queens.

THE NEW DRAWN FOUNDATION; DOES IT MAKE "GOBBY" COMB HONEY?

Of course, this new article has been the subject of continued and careful experiment at the Home of the Honey-Bees. Supers having a row of drawn foundation, and then a row of full sheets of ordinary foundation placed in alternation, have been placed on the hives, both at the home and at the out yard. We have also given the bees supers containing sections filled with drawn foundation only. Now, what has been the result of these experiments? Just the same as those conducted on a much smaller scale last year. In every case the bees have accepted the new drawn foundation at once. As was to be expected, where full sheets of the new article were put into sections, the combs were attacht, when completed, to all four sides.

Earlier in the season, when orders were pressing for the new foundation, we put into a good many sections only narrow strips about 1½ inches wide. These were placed in alternation with the old-style foundation of the same width. The new article was accepted at once, and comb building begun at its bottom edge, and continued down to the bottom of the section, nearly. In very many instances such combs were nearly completed before the bees did much with the narrow starters of *common* foundation, which they had gnawed in many cases. In one or two instances, where the supers of full sheets of drawn foundation and full sheets of old foundation were placed in alternation over *powerful* colonies, the old product was not so far behind in the drawing out. (This was the experience of M. G. Chase; but powerful colonies are not always to be had.)

"But," you may ask, "what kind of comb honey does the new drawn foundation make?" I suppose an ordinary fair test would be to compare it with comb honey made from full sheets of foundation. But Mr. Weed was determined to give it a more severe test still. Accordingly he brought in one of the sections completed that had been made from a narrow starter of *drawn* foundation. The lower portion, or that built by the bees was, of course, natural drone-comb. In my presence he requested two of the printers to turn their backs while he cut a small chunk of comb honey from the natural-built comb, and one that had been completed over the drawn foundation, *both from the same sections*. Boss printer Hobart then took a mouthful of one, without knowing which one he took. He chewed it down to a piece of wax, and then took a mouthful of the other, and chewed that also. When askt to state whether one was more "gobby" than the other, he answered in the affirmative. On being askt *which* one it was, he named the second mouthful, which proved to be the natural-built drone-comb.

To make sure that there was no mistake, another printer, Mr. Shane, was tried in the same way, only that the order of the mouthfuls was reverst, with the result in favor of the new product again. It seemed to me hardly *possible* that the Weed foundation would give *more pliable* comb honey with *less wax* than that built wholly by the bees, even tho it were drone-comb.

Then the test was applied on me, with the result that I could see quite a markt difference in favor of the Weed.

I askt Mr. Shane what he meant by saying that one was more "gobby" than the other. "Why," said he, "one is harder to chew."

Now, understand that this honey from the new Weed drawn foundation was put in to test over against *comb built wholly by the bees*, but which, as a matter of fact, was *drone*-comb, and which they usually build for store purposes during the honey-flow.

It should be stated that natural-built drone is heavier than natural-built worker; but the bees don't build much worker-comb for store purposes, as already stated. It will be seen that the fear that the comb honey from the new product be *more* "gobby" is groundless.

LATER.—After the above was in type we tried again the same experiment that we did on the printers, with the exception that we placed comb honey from foundation in the test. The tasters were A. I. Root, my sister Constance, my mother, three of the machine-shop men who hardly know a bee from a grasshopper, and last, the cook in our lunch-room. The verdict of all was that the natural-drawn comb was heavier and more gobby than either the drawn-foundation honey or that built from full sheets of ordinary foundation. As between the last two, the verdict was that there was no difference. Please understand that none of the tasters above mentioned had knowledge beforehand which sample was which. They were tested independently, with the result aforesaid.

To-day (July 12) I took home with me a section built wholly from a full sheet of Weed drawn foundation. I cut it out of the section myself. At the point where it was fastened to the wood, it seemed to resist the knife considerably; but beyond this the blade went through the comb without any sensation of midrib, as is present when the comb is built from full sheets of ordinary foundation. Upon eating the comb I could not see how anybody could think it was *more* gobby than ordinary comb honey. Strange as it may seem, our household do not ordinarily care very much for honey; but Mrs. Root remarked how nice and tender this comb was. The whole section had delicate comb, and they all pronounce it fine—even the youngest, who sits by "papa."

Now, I do not believe that I am prejudiced; and if any one thinks I am, I hope such person will try the experiment of blindfolding two disinterested persons, placing before them samples of comb honey. That will surely eliminate the element of prejudice which is so decidedly pronounced on the part of a few of those who have seen fit to oppose the new article. One man condemned the new drawn foundation severely, even before he had tried it. Now, after having tried it on a small scale (three samples from our first dies that were very inferior to our present ones), on the principle of "I told you so," he condemns it just as severely again, saying that bees would not accept it, and that it had an "awful gob" to it. His experience is so opposed to our own, in the case of dozens of samples I have seen, that I must believe his prejudice quite ran away with his judgment. A few condemned ordinary foundation when it was first introduced into this country. They condemned it beforehand, and then condemned after they had tried it, saying that the bees would not accept it, etc. It is not at all strange that one who has condemned severely the new drawn foundation should do so now, after having tried it.—Gleanings. Medina Co., Ohio.

THE HONEY-BEE—(After "Hiawatha.")

BY S. C. MARKON.

Should you ask me why these lindens,
Why these clover-fields and blossoms,
Looming up in yonder forest,
Scenting all the air around you,
Giving refuge to the songsters,
Giving shelter to the chanters,
Forming homes for many beauties;
I should ask you, I should tell you,
From that honey-bee that flying,
I should have you ask the insects,
Ask the bumble-bee and red-back,
The little tree-toad the speaker,
Ask him as he clings on linden,
Ask him if he sees at daybreak
Many busy workers flying
Through the foliage and halting
At the flowers, richly laden
With the sweetest, choicest nectar.
Ask the busy, chatt'ring squirrel,
If while gathering nuts and corn,
If he hears, above, about him,
Many roars of gentle thunder;
If he feels his tail-hairs blowing
From the wings of passing workers.
I should point you, I should lead you
To the woods of beech and maple,
To the basswood and the willows,
To the home of busy workers,
To the home of the honey-bee.

See that tree, a sturdy linden,
See the still effect of decades,
See the weakened, rotten trunk,
There a hole has broken midway
From its rooting to its summit,
Here a hum of life, nigh, unbroken;
Climb and watch, and see the inmates,
How they keep their room arranged;
See the white and silver wax-comb,
See the thousands of good house-wives,
All content their part to labor.
See the young in waxen cradles,
See the kind, attentive worker
Thrust her tongue downup to nourish;
See them guard their den of honor,
Fearful lest some meaning insect
May intrude to kill their young.

When the summer sun is shining,
See them come and fly afar off,
See them circle, above, about,
Watch them as they home returning
Pant and tremble from exhaustion;
Watch the guard as she approaches,
Watch them as they meet each other,
If perchance it be a lost one,
See them on its body waver.
Notice on the worker's hind-legs
Spots of yellow, brown and golden;
See it glisten, water, sparkle,
Like the stars a-shining skyward.
This the food for younger members
Of this family, wonderful.

Onondaga Co., N. Y.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Which Bees are Best?

Which bees are the very best honey-gatherers and extra-good workers—the 3-banded, the leather-colored Italians, or the black bees? IOWA.

ANSWER.—You can generally tell something about a man's belief from his practice. I keep bees not for my health, nor for the fun of it, but for the money I can get from the honey. At the present time I have between 200 and 300 colonies, and they vary all the way from the very yellowest to those almost black. In a good season there is a good deal of difference in the amount of honey they store. Some of them hardly pay their rent. Last year—and it will probably be much the same this season—an occasional colony hardly stored 20 pounds, while others reacht nearly ten times that amount. I don't feel proud of that. If I were a better bee-keeper I wouldn't have any such poor colonies, and there would be greater uniformity in the strength of all. Comparing the kinds, and taking those the farthest apart, I find the pure Italians invariably outstrip those that have the most black blood. But if a colony distinguishes itself particularly in the way of honey-gathering, the chances are that will be neither very dark nor pure Italian, but a cross between the two. That might suggest that the best thing would be to breed from this cross. But not being a fixt type the fear is that they might rapidly deteriorate. There is a vigor that comes from a fresh cross that may not continue if that cross is perpetuated. By trying to keep somewhat near pure Italian stock, there is all the time chance enough for the introduction of black blood from surrounding bees.

Answering your question then as you put it, I should say that the pure Italians of the leather-colored kind—and they always have the three bands—were decidedly ahead of the blacks as honey-gatherers. But across the water in England, it seems to be different. There they say the blacks excel.

Swarm Deserting—Use of Alley-Trap—Caring for Empty Combs—Destroying Bees and Saving Honey and Combs.

1. I have been bothered about keeping swarms in the hives where I put them. I will state the conditions surrounding them as nearly as I can, and ask if you can tell me why they got up and left. Some were hived in new hives recently painted on the outside only, but dry, filled with full sheets of foundation. The hives were in the sun, but an extra shade-board was provided. Swarms were mostly shaken from a limb at the entrance of the hive, thus getting the whole cluster. Others were hived in hives filled with empty combs, which had been fumigated about two weeks before using, having been well aired, however. Some would stay 24 hours, others only a few hours, when they would get up and leave for parts unknown.

2. I am so situated that I cannot watch for swarms, and think of using Alley's queen-traps next year to save swarms. *a.* Is it a sure sign that a colony has swarmed to find the trap full of drones. *b.* What is the best way to find the queen in the trap among the drones when I wish to divide after they have swarmed?

3. What is the best way to care for empty combs from winter time to swarming time?

4. If I should wish to destroy a swarm and save the honey and combs, what is the best way to do it?

NORTHERN ILLINOIS.

ANSWERS.—1. The probability is that heat was at the bottom of the trouble. The weather has been unusually hot, and bees will not stand as much heat when freshly hived as they will after being well settled in housekeeping. If it is hot when they are hived, they seem to say, "Whew! this is almost too much for us older folks to stand; guess we'd better get out before there are any babies in the hive to be roasted." But after getting well started they don't want to go and leave their brood. Arguing on this ground, some say it's a good plan to give a frame of brood to a swarm when first hived, for they will not desert it, while others say the frame of brood is the very thing to make them leave. I suspect that both are right, and if we understood the matter more fully perhaps we could tell just when and under what circumstances the brood would make the bees stay, and *vice versa*.

But the great thing to look out for, when hiving a swarm, is to see that it has plenty of air. Of course shade is very important, and besides giving a shade-board you might have wet the hive and surroundings with water when the day grew hot, but in the densest shade they may desert the hive if it is too close. Let it be open as possible at the bottom, open if possible on as many sides as the hive has sides, and for a day or two, if the weather is very hot, let the cover be partly off, leaving a good, big crack for the air to pass up through.

2. *a.* By no means. A strong colony will nearly always —perhaps always—have some drones during the swarming season, and if a queen-trap is put on the hive you may count on finding drones in it, swarm or no swarm. *b.* There ought to be no difficulty. If the drones are in very large number, let them run into the hive over a board two or three feet long, or over a sheet. The queen can easily be seen in the procession.

3. Probably the very best of all ways is to put them in an empty hive and put the hive under another containing a colony of bees.

4. I don't know. Possibly the most humane way would be to chloroform them and throw them in the fire. But I would first brush all bees off the combs and take the combs away, and it might be well to remove the queen three weeks previous, to save the honey that would be used in rearing young bees, and for the sake of having the combs free of brood. Probably sulphur is used more than all other things combined to suffocate bees.

◆

Carrying Out Dead Brood.

I had a colony of bees that brought out dead brood at a small rate. But they increast a great number. June 27 they cast a large swarm, July 9 they cast another swarm, and the 10th another. The first swarm has begun to have hatching brood. I put sawdust in front of the first new hive to see if dead brood was carried out. Yesterday I noticed a number of dead bees that had not attained their full growth. They have a hive and a 30-pound super full of honey. What is the cause of this dead brood that they have brought out?

New York.

Answer.—It is hard to say without personal inspection. The most likely thing would be that the bees were blacks, and that wax-worms were present in the hive, altho it would seem very strange for them to be present in sufficient force in a hive well populated by a recent swarm. That the original colony should be strong enough to cast a large swarm seems to indicate that the loss of numbers from the death of the young bees is not a very serious matter.

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A Stray Swarm—Colony Deserting.

1. Last winter there was a man lived in our tenement house across the road, and last April when he moved away he left his empty bee-hives stackt beside the grapevines. Last Tuesday a swarm of bees lit on the vines, and then went into one of these empty hives. Now, what I would like to know is, whose bees are they?

2. One of my neighbors had a new colony leave the hive and go off, after they had filled it with honey. Can you account for it?

This is one of the best honey seasons ever known here. We are having terribly hot weather, the thermometer registering 102° in the shade. There have been quite a number of sunstrokes. Not much rain.

New York.

Answers.—1. I can hardly venture a guess. If the swarm came from one of John Smith's colonies, and John Smith had followed it and kept it in sight until it entered the hive, then I suppose John could claim it as his. But in the present case it seems to be a stray swarm with no previous owner in the case, and the question is whether the swarm belongs to the owner of the premises or the owner of the hive. If I should venture an opinion, it would be that the swarm belongs to the owner of the hive, providing he is paying rent to have his hives occupy their position, but if they are merely there by the sufferance of the owner of the land, then the swarm belongs to the owner of the land. This opinion is, however, subject to reversal by any higher court, and it isn't necessary for the court to be very high, for this court is a bee-keeper and not a lawyer.

2. No, I can't. For a colony of bees to desert a hive just after filling it with honey seems to be a case of total depravity in bee-life. I wonder just a little whether it might not have been a case of swarming. That might be, for sometimes a swarm is lodged in a hive and itself sends out a swarm as soon as conditions allow.

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Honey on Meal for Bees—Inserting Queen-Cells in a Queenless Colony.

1. The books suggest feeding meal to bees by placing honey on the meal. Will not this induce robbing?

2. It is also suggested that colonies or nuclei should be queenless for 24 hours before inserting queen-cells. In the meantime, should the capt queen-cells be allowed to remain in the hive where reared? Unless carefully timed in each proceeding, will the queens not be liable to hatch and cause trouble?

California.

Answers.—1. Not very likely. Only a small quantity of honey need be used, and as soon as that is consumed the bees are expected to go on with the meal. Besides, the feeding is at some distance from the hives.

2. If there are present in the hive queen-cells older than the ones you insert, you may feel pretty sure that the latter ones will be destroyed. If you want the bees to respect the sealed cells you insert, remove all others that are older, the safe plan being to remove all other sealed cells.

◆

Hive-Entrances When Supers are On.

I am a constant reader of the American Bee Journal, and take great interest in bees. I begun this summer with 4 colonies in old gums, and now have 10 in Dovetailed hives, and have supers on most of them. The bees are working in the sections nicely. I have pure Italian queens in all of them. Should the entrance be opened larger when supers are on than it is when the super is not on? Some of my bees seem to be crowded and laying out, and I put supers on and they lay out more, I believe, so I opened the entrance more, which seems to help the matter. Is it best to have full length entrances?

Tennessee.

Answer.—It is hardly probable that the bees hung out more *because* supers were put on, altho they may have hung out more *after* they were put on. The hanging out was probably the result of heat and larger numbers, altho it may also have come from other causes such as a letting up of the harvest giving the bees less to do, or an inclination to swarm. In any case, it's a good thing to give the bees plenty of air when you put on supers, and you can hardly overdo the matter so long as you give the air from below. Yes, full length entrances are none too large, and it may be still better to raise the hive at the four corners, so the air can enter on all four sides. Of course that it is possible only with loose bottom-boards.

The Horse—How to Break and Handle.—This is a pamphlet of 32 pages, giving complete instructions for breaking and educating colts, teaching horses to drive, and for use under the saddle, together with many instructions which have never before been publisht, and which are the result of the author's experience covering a period of 20 years. By Prof. Wm. Mullen, with whom the editor of the Bee Journal is personally acquainted. Price, postpaid, 20 cents; or given as a premium for sending us one new subscriber to the Bee Journal for the rest of the year at 50 cents.

◆

Back Numbers Since Jan. 1.—We are able to supply complete sets of the Bee Journal since Jan. 1, 1897, to any who may desire, at two cents per copy. There are a number of new readers who perhaps would like to get some of the first numbers of this year, to complete their volume for 1897. We shall be glad to furnish them as long as they last, at two cents each.

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GEORGE W. YORK, - Editor.

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Editorial Comments.

Quoting the Honey Market.—It will be interesting to note the market quotations on honey in the various cities the next six months. It is also interesting to note the evident desire on the part of a certain class of dealers to over-quote the market, or quote prices above the actual—apparently in order to induce shipments of honey. That was the Horrie-Wheadon scheme here in Chicago in 1895 and 1896. And it workt well, too. They just got piles of honey; and the shippers got—well, they got beautifully "left" in many instances.

We noticed about two weeks ago the Chicago market was being quoted to bee-keepers something like this: Fancy white comb honey at 14 cents; No. 1 white, 12 to 13 cents; and amber comb honey at 11½ to 12½ cents. Upon learning this, we referred the quotations to a large and responsible honey-dealing firm, requesting their opinion concerning the figures as given for this market at that time. Here is their reply:

CHICAGO, Ill., July 26, 1897.

GEORGE W. YORK, ESQ.—

Dear Sir:—You ask for our opinion: To write it to you at this time would simply be a repetition of what you and we have long ago agreed upon, namely, that the purpose of it is to induce people to send their property because of the necessities of the solicitors. These necessities need not necessarily exist because the solicitor requires food for his physical necessities, but may be a mental trait or desire which has become as much of a necessity as dire material needs. Hence we must unite our strength and prevent those less well-informed than ourselves from becoming the victims of unprincipled venders and self-styled personal representatives. We trust you will give all such communications as come to you, space in the American Bee Journal, thus making it as a medium between the city as a place of market and the rural districts which supply the necessaries that make city life possible, a valuable auxiliary.

The honey supply to-day here is in excess of the demand that will probably be found for the coming two weeks, and advices are such as to warrant us in saying that there is double the quantity of honey *en route* as compared with this day one week ago.

Our market to-day is easy at 12 cents for fancy white clover comb honey.

Yours truly,
HONEY-DEALERS.

We need only say further: Don't allow yourselves to be influenced by high market quotations. If you do, the result will be that your honey crop will be shipt, and when returns are received, in nine cases out of ten, you will be compelled to take just what the irresponsible commission-man feels like sending you, or perhaps what he really can get for you by reason of a lower market than he quoted, of course *claiming* that prices have gone down *since* certain high quotations were made. There are many ways to crawl out of a bad deal, and no one understands the crawling-out process better than the unprincipled commission-man.

Again we say: Don't ship honey to irresponsible city commission firms. Better *give* your honey to your less fortunate neighbors, than to help keep in existence the scheming, defrauding, good-for-nothing class of city fellows that live by swindling the honest, hard-working farmers.

But, remember, there *are reliable* commission-men in every city, and our denunciations, of course, do not apply to them. We are striving to help the deserving firms by driving out the other kind.

◆

The Season of 1897 is thus referred to by Editor Hutchinson, of the Review:

> A good season for honey is the present one. I think I have never seen white clover more abundant, altho I have seen it yield more generously; but, so near as I can learn, the country over has had an abundant honey crop—something as it was in the years gone by, those years that some feared would never return. It is a pleasure to know that Nature is yet capable of bringing about those conditions that will result in a crop of honey. It looks as tho an abundance of rainfall (or snow) for several months previous to the honey season has been the one thing lacking in the last few years,

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The Omaha Exposition in 1898 will do well by the bee-keepers, it seems. Mr. E. P. Newhall, an Omaha bee-keeper, has kindly sent us a clipping taken from the daily Omaha Bee, dated July 23. Mr. J. M. Young, another Nebraska bee-man and correspondent of the American Bee Journal, sent us a similar clipping, which says that the apiary building and its exhibits are the subjects of consideration at the hands of the management of the Transmississippi Exposition at this time. At the last meeting of the Executive Committee, the Department of Buildings and Grounds was authorized to ask for competitive drawings for this building, and the Department is now making investigations into the question of the most approved plans for buildings designed for this purpose. Local architects will be askt to submit drawings as soon as it has been determined what manner of building will best answer the purpose.

This is a matter in which the hundreds of bee-keepers in that section are vitally interested. The Iowa State commission was especially inquisitive about the arrangements which were to be made for the display of exhibits representing the extensive apiary interests of that State, and representatives of the Nebraska bee-keepers have been inquiring into the matter. Iowa stands near the head of the list of States in the extent of her apiary interests and the amount of business represented. Nebraska is not far behind, and is rapidly forging to the front.

Mr. G. W. Hervey, one of the best local authorities on bees and apiarian interests generally, was at Exposition head-quarters on July 22, consulting with the Department of Exhibits regarding apiary exhibits. Mr. Hervey stated that the apiarian interests of Nebraska are rapidly increasing, and will soon compare favorably with any State in the Union. He said there are now about 1,000 bee-keepers in Nebraska, and they have been remarkably successful in increasing their stock of bees, owing partly to the fact that the entire section has been singularly free from the diseases which usually attack the industrious little insects. The recent scourge which swept across the section immediately contiguous to Omaha, Mr. Hervey stated, was confined almost entirely to Omaha and a small section adjacent; aside from this he said there had been no general disease among the bees of that State. He also said that Nebraska has a larger variety of honey-plants than any other State in the Union, and these conditions will undoubtedly result in a very large increase in the apiarian interests in the near future.

It is generally believed among bee-men that Hon. E. Whitcomb, of Friend, will be appointed by the Nebraska Exposition commission to have charge of the apiary section of Nebraska's exhibit. Mr. Whitcomb was President of the Nebraska State Bee-Keepers' Association for a long time, and was in charge of the State's apiarian exhibit at the World's Fair. Mr. Whitcomb is also Vice-President of the United States Bee-Keepers' Union, and a member of the Board of Directors.

The Department of Exhibits authorizes the official announcement that it contemplates erecting the cases for installing the exhibits in the apiary building, and will charge exhibitors $1.50 per square foot for floor space in these cases. This is regarded as a most reasonable charge, and the announcement is made to correct a rumor which had been circulated among bee-men to the effect that a rate of $10 per foot was to be charged them for space.

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Still Fighting Sweet Clover.—In Gleanings for July 15, we find a letter from an Illinois farmer who, with his neighbors, are doing their best to exterminate sweet clover, believing it to be a "noxious weed." This particular farmer helpt to sow the first sweet clover seed in his locality, and now regrets it, and wants to know the best way to totally destroy it. Mr. A. I. Root gives such a good reply to the letter in question, that we take pleasure in copying the greater part of it, which is as follows:

> My good friend, you and your neighbors are certainly making a big mistake. I have studied sweet clover all over the State of Ohio and in other States, but I have never yet found it in pasture lots, in meadows, or in cultivated fields. I cannot see why it should be called a noxious weed any more than common red clover, unless it is that horses and cattle must learn to eat it before they take to it as readily as they do to red clover. But this is not at all strange, for cattle in Florida will not eat *corn* until they have been taught. Sweet clover is in our neighborhood, along the roads, as high as the the fences, *but nowhere else*. It grows on the dry, hard clay banks by the sides of the railroads, where no other weed can find a foothold; but my richly-cultivated ground is also right along by the railroad, just over the fence, and yet our boys will tell you they never find sweet clover as a weed anywhere. If you and your friends will cut your clover when it is knee-high, or a little more, you will find it will make excellent hay; and if it were really desirable to banish it from the roadsides, the matter is easily accomplisht by cutting it off before it goes to seed. Teach your neighbors to *use* this valuable clover, and all prejudice will soon disappear. Put a fence around it and turn the cattle right in—that is, if cattle are not permitted on the roadside—and see how quickly it will disappear. If you want the ground for other crops, turn it under with a chain as you would ordinary red clover, and you will find it worth as much as or more than any other clover known, as a fertilizer.
>
> I am surprised that you say nothing in regard to its value as feed, for I am convinced that some of your horses and cattle have already acquired a taste for it and a liking for it; and their "opinion" in the matter is certainly unbiast. I do not know why in the world you should go to the trouble of trying to cut off the thick old stalks with a hoe. If you really want to get rid of it, wait till next spring, when the old stalks will all be dead and gone; then plow under, pasture off, or cut the young shoots before they get too far along to be tough and hard.
>
> We have between 15 and 20 acres under cultivation, and sweet clover is growing high and rampant all around my cultivated fields. Yes, it is at this writing (July 6) six feet or more, and has been growing so for years past, tho we never find it in our strawberries at all, while other weeds are a terrible nuisance just about fruiting time. In traveling I have talkt with others, and askt questions in regard to the habits of the plant; but I have nowhere seen it behave any differerently from what it does here.

Perhaps if these mistaken Illinois farmers knew what a fine honey-plant sweet clover is, they'd begin to keep bees and gather in some of its sweetness for their tables, rather than spend their time in trying to destroy it. It seems unaccountably strange that some otherwise sensible people will pass unnoticed ragweed and other useless weeds, and then work themselves into a perfect frenzy when they see the harmless and valuable sweet clover growing on the roadside.

But sweet clover will go right on proving a blessing to the bee-keeper, and also to the farmer who has learned to recognize in it one of *his* best friends.

The Weekly Budget.

MR. OSCAR KERNS, of Caldwell Co., Mo., was in our office last week. He is a local bee-supply dealer, and also a very practical honey-producer, running several out-apiaries. Very busy man, but he "gets there," every time.

MR. A. Y. BALDWIN, of Dekalb Co., Ill., gave us a short call July 28. He reported his bees doing extremely well this year, some colonies already yielding over 100 pounds of comb honey each. He will sell in the home market at a low or reasonable price, rather than take his chances in the larger markets. Wise man.

DR. C. C. MILLER was greatly honored as well as advertised in the Chicago Daily News for the evening of July 28. They had him nicely pictured, and about a column article telling about his bees and varied work. But they did him only simple justice—couldn't very well speak too highly of Dr. Miller, as all bee-keepers know.

THE CENTRAL TEXAS CONVENTION was held at Cameron, July 16 and 17. We are informed that 42 bee-keepers were in attendance, and the officers elected were these: President, Judge E. Y. Terral; Vice-President, O. P. Hyde; and Secretary, C. B. Bankston, of Cameron, Tex. We expect soon to publish a report of the meeting.

DR. E. GALLUP, of Orange Co., Calif., writing us July 22, said:

> "My bees are doing splendidly—94 colonies—now crawling along up to the 100, where I set my stakes last spring."

For a "young man" over 75 years old, that is a pretty large apiary to take care of. But being in California—that land of wonders—we need not be surprised at it. They do great things out there—that's one of their natural habits!

MR. H. G. QUIRIN, of Huron Co., Ohio, writing July 28, asks us to take out his advertisement for awhile, for the following excellent reason:

"I have urgent business on hand which has prevented my working with the bees for some time. This business is running down and bringing to justice *honey-thieves*. My honey-house was broken into last week and a lot of honey carried off. I have succeeded in landing three behind prison-bars, and expect to get several more shortly. And now, as I have caught them, or at least part of them, I expect to see to it that they go where they belong. There is no use in producing a nice lot of honey and then let some thief come at midnight and carry it off; and I might as well include *honey adulterators and fraudulent commission-men*. The bee-keepers of the United States seem to be in a state of *lethargy*. To stop this kind of work there must be action."

We are glad Mr. Quirin is showing the thieving fellows that he means business. If he makes a good example of them, it will put a stop to that kind of "in-Quirin'" around his place, and perhaps serve as a lesson to others.

MR. J. T. CALVERT, of The A. I. Root Co., called on us last Friday, when on his return from California. He arrived at our office about 10 a.m., and left at 7 p.m. the same day, expecting to reach his Ohio home the next morning, about 8 o'clock. He had been away five weeks, and had had a great trip. In the afternoon, Mr. L. Kreutzinger, the largest Chicago bee-keeper, with 150 colonies about 6 miles northwest of the court house, took Mr. Calvert and the writer in his carriage out to see his bee-yard, which is located in the midst of hundreds of acres of sweet clover, now in full bloom. He should harvest a large crop of honey. He thought there was then (July 30) 3,000 pounds on the hives. Later we hope to show a picture of Mr. K.'s bee-yard.

MR. E. E. HASTY, it seems by the July Review, is an active member of some "mutual admiration society," judging from this sincere sentence, which appeared in his last "View of Current Bee-Writings:"

"I honestly believe, Friend Hutchinson, you need less alteration to make you into the new model editor than any bee-editor we have."

Well, Editor Root (E. R.), that settles it, so far as you are concerned. You might as well stop *trying* to be a "model editor." Need too much "alteration." Why, just think of it, with so many other editors—besides our friend Hutchinson—needing less "alteration," what possible chance can there be for *you?* There are Editors Holtermann, Abbott, Leahy, Merrill, "Mr." Jennie Atchley, etc., to compete with. Well, you might just as well give up right now, and try to be content with never being a "new model editor"—but just plod on as best you can. It's discouraging, but then, such is life.

P. S.—LATER.—Hold on! Perhaps you can yet hope to become an *old* "model editor"—if you live long enough! Still, it may be that some began to edit *before* you did. No use, Editor Root; you're not "in it."

The Buffalo Convention Notice has been sent us by Secretary Mason, and reads as follows:

STA. B, TOLEDO, Ohio, July 5, 1897.

MR. EDITOR:—Will you please say in the next issue of the American Bee Journal that the next annual convention of the United States Bee-Keepers' Union will be held in the Main Hall of Caton's Business College, corner of Main and Huron Streets, in Buffalo, N. Y., commencing at 10 o'clock, a.m., of Aug. 24 next, and closing on the afternoon of the 26th?

Papers are to be read by W. Z. Hutchinson, R. F. Holtermann, E. Whitcomb, Hon. R. L. Taylor, Mrs. L. Harrison, R. C. Aikin, G. M. Doolittle, Dr. J. P. H. Brown, Hon. Eugene Secor, Geo. W. Brodbeck, M. B. Holmes, A. E. Manum, E. Kretchmer and P. H. Elwood; to which will be added the President's Address, and perhaps the General Manager and the Secretary may have something of interest to present.

The programs are now printed and in the hands of the Secretary. There are six bee-keepers' songs, with music, in the program, and abundance of time is allotted to the discussion of all papers, and for the asking and answering of questions.

Any one not a member of the Union can have a program sent them by mail on receipt of 5 cents in postage stamps by the Secretary.

Several of our well known bee-keepers, such as A. I. Root, Dr. Miller, S. T. Pettit and others who are not on the program, will be present to help make the convention interesting and instructive.

It is probable that suggestions will be made at this convention in the line of so amending the constitution of the Union as to remove its objectionable features and add such other provisions as may seem desirable, and suggestions in this line by those not able to be at the convention can be sent to the Secretary, to be brought before it. Some suggestions have already been received by the Secretary, and others have been made in the bee-papers.

Those going to the convention should buy round-trip tickets to the Grand Army of the Republic encampment (not to the United States Bee-Keepers' convention), which meets at Buffalo during the last week of August. The G. A. R. have secured a rate of one cent a mile each way in the territory of the Central Passenger Committee, which is included by Toronto, Canada, thence on a line to Port Huron, Mich., all of the southern peninsula of Michigan; Chicago, Peoria and Quincy, Ill., St. Louis, Mo., Louisville, Ky., and Pittsburg, Pa. The Western Passenger Association and the Trunk Line Association make a rate of one fare for the round-trip in their territory to places in the Central Passenger Association, from which points the fare will be one cent a mile each way, but tickets must be purchast to Buffalo from the starting point. Enquire of your ticket or station agent in all territory outside of the above-named for rates and the time the tickets are good for, for I have been unable to learn the rates in such territory, but presume it will be the same as that of the Western Passenger and the Trunk Line Association; but be sure to inquire of your ticket agent as above suggested.

In the Central Passenger and Trunk Line territory tickets will be good going on the 21st, 22nd and 23rd, and if vised at Buffalo will be good, returning, for 30 days.

Mr. O. L. Hershiser, of Buffalo, has charge of arrangements at Buffalo, and will attend to the matter of hotel rates. He writes: "I purpose obtaining accommodations in private families for all bee-keepers who prefer such to hotels." Members of the Union can learn in regard to hotel rates by applying to the Secretary at the place of meeting. If known in time, hotel rates will be given in the bee-periodicals.

A. B. MASON, *Sec.*

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The Buffalo Programs are going out nicely at the 5-cent rate. When one thinks of the half-dozen bee-songs that go with it—and all for only 5 cents—why, he will of course send for a copy. Address the Secretary, Dr. A. B. Mason, Sta. B, Toledo, Ohio, who will mail you as many of the programs as you may want at price named. Better get a copy in advance of the convention, and learn the songs so that when you get to Buffalo you can help sing them. We expect Dr. Miller to be there to play them, and show us all just how they ought to be sung. But we can all learn the melodies before going, and be ready to join in the "swelling chorus" in the convention hall.

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Encyclopedia for Beeswax.—Some time ago we offered a splendid work of eight large volumes, called "The New Standard American Encyclopedia," having nearly 4,000 pages, and over 300 colored maps, charts, and diagrams. Size of volume, 2 inches thick, 8½ wide, and 11½ long. As per that offer, last publisht on page 186, the eight volumes were offered by freight for only $19 cash. We can furnish a set or two at that price, bound in half morocco; or will exchange a set for 75 pounds of yellow beeswax, delivered at our office. You would be more than satisfied with the Encyclopedia, and a set of such books ought to be in every family for reference.

◆

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

◆

Now is the Time to work for new subscribers. Why not take advantage of the offers made on page 481?

BEE-BOOKS

SENT POSTPAID BY

George W. York & Co.,

Chicago, Ills.

Bees and Honey, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages, and 245 illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold-lettered. Price, $1.00.

Langstroth on the Honey-Bee, revised by Dadant—This classic in bee-culture, has been entirely re-written, and is fully illustrated. It treats of everything relating to bees and bee-keeping. No apiarian library is complete without this standard work by Rev. L. L. Langstroth—the Father of American Bee-Culture. It has 520 pages; bound in cloth.

Price, postpaid, $1.25.

Bee-Keepers' Guide, or Manual of the Apiary, by Prof A. J Cook, of the Michigan Agricultural College.—This book is not only instructive and helpful as a guide in bee-keeping, but is interesting and thoroughly practical and scientific. It contains a full delineation of the anatomy and physiology of bees. 460 pages; bound in cloth and fully illustrated.

Price, postpaid, $1.25.

Scientific Queen-Rearing, as Practically Applied, by G. M. Doolittle.—A method by which the very best of Queen-Bees are reared in perfect accord with Nature's way. 176 pages, bound in cloth, and illustrated. Price, $1.00.

A B C of Bee-Culture, by A. I. Root.—A cyclopædia of 400 pages, describing everything pertaining to the care of the honey-bees. It contains 300 engravings. It was written especially for beginners Bound in cloth. Price, $1.25.

Advanced Bee-Culture, its Methods and Management, by W. Z. Hutchinson.—The author of this work is too well known to need further description of his book. He is a practical and entertaining writer. You should read his book. 90 pages, bound in paper, and illustrated. Price, 50 cts.

Rational Bee-Keeping, by Dr. John Dzierzon—This is a translation of his latest German book on bee-culture. It has 350 pages; bound in paper covers, $1.00

Bienen-Kultur, by Thomas G. Newman.—This is a German translation of the principal portion of the book called BEES OF HONEY. 10[illegible] page pamphlet. Price, 40 cents.

Convention Hand-Book, for Bee-Keepers. Thomas G. Newman.—It contains the parliamentary law and rules of order for Bee-Conventions—also Constitution and By-Laws, with subjects for discussion, etc. Cloth, gold-lettered. Price, 25 cts.

Thirty Years Among the Bees, by Henry Alley.—Gives the results of over a quarter-century's experience in rearing queen-bees. Very latest work of the kind. Nearly 100 pages. Price, 50c.

Why Eat Honey?—This Leaflet is intended for FREE distribution, to create a Local Market. 100 copies, by mail, 30 cts.: 500 for $1.25; 1000, $2.00.

How to Keep Honey and preserve its richness and flavor. Price same as Why Eat Honey.

Alsike Clover Leaflet.—Full directions for growing. 50 for 25 cts.; 100 for 40 cts.; 200, 70c.

Apiary Register, by Thos. G. Newman.—Devotes two pages to a colony. Leather binding. Price, for 50 colonies, $1.00; for 100 colonies, $1.25.

Preparation of Honey for the Market, including the production and care of comb and extracted honey. A chapter from BEES AND HONEY. Price, 10 cents

Bee-Pasturage a Necessity.—This book suggests what and how to plant It is a chapter from BEES AND HONEY. Price, 10 cents.

The Hive I Use, by G. M. Doolittle. It details his management of bees, and methods of producing comb honey. Price, 5 cents.

Dr. Howard's Book on Foul Brood.—Gives the McEvoy Treatment and reviews the experiments of others. Price, 25 cts.

Dictionary of Apiculture, by Prof. John Phin. Gives the correct meaning of nearly 500 apicultural terms. Price, 50 cts.

Winter Problem in Bee-Keeping. by G. R. Pierce. Result of 25 years' experience. 30 cts.

Handling Bees, by Chas. Dadant & Son.—A Chapter from Langstroth Revised. Price, 8 cts.

History of Bee-Associations, and Brief Reports of the first 20 conventions. Price 15 cts

Foul Brood Treatment, by Prof. F. R. Cheshire.—Its Cause and Prevention. Price, 10 cts.

Foul Brood, by A. R. Kohnke.—Origin, Development and Cure. Price 10 cts.

Practical Hints to Bee-Kee-Keepers—by CHAS. F. MUTH. Also contains a Foul Brood Cure and How to Winter Bees. 40 p.; 10 cts.

Bee-Keeping for Profit, by Dr. G. L. Tinker.—Revised and enlarged. It details the author's "new system, or how to get the largest yields of comb or extracted honey." 80 p.; illustrated. 25c.

Emerson Binders, made especially for the BEE JOURNAL, are convenient for preserving each number as fast as received. Not mailable to Canada. Price, 75 cts.

Commercial Calculator, by C. Ropp.—A ready Calculator, Business Arithmetic and Account-Book combined in one. Every farmer and business man should have it. No. 1, bound in water proof leatherette, calf finish. Price, 40 cts. No. 2 in fine artificial leather, with pocket, silicate slate, and account-book. Price, 60 cts.

Green's Four Books, by Chas. A. Green.—Devoted to, 1st, How We Made the Old Farm Pay; 2nd, Peach Culture; 3rd, How to Propagate Fruit-Plants, Vines and Trees; 4th, General Fruit Instructor. Nearly 120 pages. Fully illustrated. 25 cts.

Garden and Orchard, by Chas. A. Green.—Gives full instructions in Thinning and Marketing Fruits; Pruning, Planting and Cultivating; Spraying, Evaporation, Cold Storage, Etc. 94 pages, illustrated. Price, 25 cts.

Kendall's Horse-Book.—35 pictures, showing positions of sick horses, and treats on all their diseases. English or German. Price, 25 cts.

Silo and Silage, by Prof. A. J. Cook.—It gives the method in operation at the Michigan Agricultural College. Price, 25 cts.

Lumber and Log-Book.—Gives measurements of lumber, logs planks; wages, etc. 25c.

Maple Sugar and the Sugar Bush, by Prof. A. J. Cook.—Full instructions. Price, 35 cts.

Grain Tables, for casting up the price of grain, produce, hay, etc. Price, 25 cts.

Capons and Caponizing, by Dr. Sawyer, Fanny Field, and others.—Illustrated. All about caponizing fowls, and thus how to make the most money in poultry-raising. 64 pages. Price, 30 cts.

Our Poultry Doctor, or Health in the Poultry Yard and How to Cure Sick Fowls, by Fanny Field.—Everything about Poultry Diseases and their Cure. 64 pages. Price, 30 cts.

Poultry for Market and Poultry for Profit, by Fanny Field.—Tells everything about the Poultry Business. 64 pages. Price, 25 cts.

Turkeys for Market and Turkeys for Profit, by Fanny Field.—All about Turkey-Raising. 64 pages. Price, 25 cts.

Rural Life.—Bees, Poultry, Fruits, Vegetables, and Household Matters. 100 pages. 25 cts.

Potato Culture, by T. B. Terry.—It tells how to grow them profitably. Price, 40 cts.

Hand-Book of Health, by Dr. Foote.—Hints about eating, drinking, etc. Price, 25 cts.

Bee-Keepers' Directory, by H. Alley.—Latest methods in Queen-Rearing, etc. Price, 50c.

Book Clubbing Offers.

(Read Carefully.)

The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only ONE book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted, see postpaid prices given with the description of the books on this page. Following is the clubbing-list:

1. Langstroth on the Honey-Bee	$2.00
2. A B C of Bee-Culture	2.00
3. Bee-Keeper's Guide	1.75
4. Bees and Honey [Cloth bound]	1.65
5. Doolittle's Scientific Queen-Rearing	1.75
6. Dr. Howard's Foul Brood Book	1.10
7. Advanced Bee-Culture	1.30
9. Bienen-Kultur [German]	1.20
11. Rational Bee-Keeping [Paper bound]	1.75
12. Thirty Years Among the Bees	1.30
13. Bee-Keeping for Profit	1.15
14. Convention Hand-Book	1,15
15. Poultry for Market and Profit	1.10
16. Turkeys for Market and Profit	1.10
17. Capons and Caponizing	1.10
18. Our Poultry Doctor	1.10
19. Green's Four Books	1.15
21. Garden and Orchard	1.15
23. Rural Life	1.10
24. Emerson Binder for the Bee Journal	1.60
25. Commercial Calculator, No. 1	1.25
26. Commercial Calculator, No. 2	1.40
27. Kendall's Horse-Book	1.10
30. Potato Culture	1.20
32. Hand-Book of Health	1.10
33. Dictionary of Apiculture	1.35
34. Maple Sugar and the Sugar Bush	1.20
35. Silo and Silage	1.10
36. Winter Problem in Bee-Keeping	1.30
37. Apiary Register (for 50 colonies)	1.75
38. Apiary Register (for 100 colonies)	2.00
39. Bee-Keepers' Directory	1.30

10 PER CENT DISCOUNT

I have a Large Quantity of Winter-Sawed Basswood on hand, and will make SHIPPING-CASES at 10 per cent. discount from list price. Cases holding 15 sections, $5.00 per hundred net. First-class work guaranteed.

Write for Price-List.

W. J. STAHMANN, Weaver, Minn.

Mention the American Bee Journal. 25A8t

Muth's HONEY-EXTRACTOR Square Glass Jars.

Root's Goods at Root's Prices.

BEE-KEEPERS' SUPPLIES in general, etc etc Send for our new catalog.

"Practical Hints" will be mailed for 10c. in stamps. Apply to—

Chas. F. Muth & Son, Cincinnati, Ohio.

Honey - Clovers !

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
Alsike Clover	.70	$1.25	$3.00	$5.75
Sweet Clover (white)	.60	1.00	2.25	4.00
White Clover	.90	1.60	3.75	7.00
Alfalfa Clover	.60	1.00	2.25	4.00
Crimson Clover	.55	.90	2.00	3.50

Prices subject to market changes.

Add 25 cents to your order, for cartage, if wanted by freight.

Your orders are solicited.

GEORGE W. YORK & Co.
CHICAGO, ILL.

TRANSFERRING MADE EASY

If you contemplate buying either three or five band Italian Queens, simply write for my pamphlet. If you need some of the best now, send 75 cts. for one, $4.00 for six, or $7.50 per doz.—and full instructions for introducing, as well as the best methods known for securing good cells will be sent free.

Money Order office—Warrenton.

W. H. PRIDGEN,
21A13t CREEK, Warren Co., N. C.

Mention the American Bee Journal.

ITALIAN QUEENS

"Good Yellow Ones"—60c each; 6 for $3.00.

1-LB. HONEY-JARS $1.50 per gross.

Catalog of Apiarian Supplies free.

I. J. STRINGHAM,
105 Park Place. NEW YORK, N. Y.
APIARY—Glen Cove, L. I.

Mention the American Bee Journal.

For the G. A. R. Encampment

To be held at Buffalo, N. Y., Aug. 23 to 28 inclusive, will be sold over the Nickel Plate Road at $10.50 for the round trip. Good going Aug. 21st, 22nd and 23rd.

The Nickel Plate Road is the short line between Chicago and Buffalo, and is equipt with the most modernly constructed day coaches and luxurious sleeping and dining cars. Colored Porters are in charge of the day coaches, and the facilities for the comfort of patrons is unsurpast. Commander-in-Chief Clarkson has selected this line for the transportation of himself and staff, and respectfully invites his comrades to join him.

Mr. J. Y. Calahan, General Agent, 111 Adams St., Chicago, Ill., will be pleased to furnish all information in regard to train service, etc. Depot, 12th and Clark Sts. 20

ARE YOU SEEKING REST AND RECREATION

during the summer months? If so, send for Summer Outings along the line of the Nickel Plate Road, from which you will be able to select quiet and picturesque resorts with facilities for good fishing and bathing. Elegantly equipt coaches; luxurious sleeping cars and unexcelled Dining Car Service. Three through trains daily between Chicago and the East.

Address, J. Y. CALLAHAN, Gen'l Agent, 111 Adams St., Chicago, Ill.

General Items.

Never Did So Well.

I have kept bees for the last five years, but they never did so well as this season.

AUGUST BUCHHAGEN.

Jefferson Co., Ohio, July 26.

Bees Doing Fine.

I have about 60 colonies of bees, and can't get along without the American Bee Journal. My bees are doing fine this year. I live close to the Scioto Valley, and they are now working on sweet clover and catnip mostly. I have some as fine Italian bees as there are in the State.

JOEL PENDERGRASS.

Pike Co., Ohio, July 27.

Marketing Honey.

Years ago I made up my mind that the best package to put extracted honey in was the Mason quart jar. As they represent so much cash, if one does not want to put up fruit or jelly in them they are always worth so much money. When I commenced producing extracted honey here in 1876 I got 12 to 15 cts. per lb. for it. The price gradually decreast until, when the hard times of 1893 struck us, I found that, if I wanted to sell my honey, 1st or 2nd grade, I had to put the price so that it was not a luxury, but necessary—so low that it was nearly the price of syrup; so that now I keep in all the groceries of this place of 2000 inhabitants, quart Mason jars of 2nd grade, with a neat label on, which they retail at 20 cents.; and I let the stores have them for 18 cts., and take it in trade. I know that I do not buy anything these hard times unless I need it and it is cheap; so it is with others. We must reduce the price or keep our honey.—DR. S. S. BUTLER, of California, in Gleanings.

Honeyed Kisses, Etc.

Talk about honey! you just ought to have seen the new crop. First, I put one super on that middle hive, and soon after put on another, just to have it there. That was three weeks ago, before an ounce of honey could be seen in either super.

Well, last evening I concluded I'd change the supers about, put the lower one on top, and the top one below. Say! it was all I could do to lift it, and when I had gotten the bees smoked off its surface there were revealed to me 32 sections of as solid clover honey as you ever laid eyes on! Remember that fine sample of honey you took to the Toronto convention? Well, this looks fully as attractive.

The second super is being rapidly

Finest Alfalfa Honey!

IT SELLS ON TASTING.

The Honey that Suits All Who Buy It.

Low Prices Now!

We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 7½ cents per pound; 2 cans in one case, 7 cents; 4 cans (2 cases) or more, 6¾ cents. The Cash MUST accompany each order. **Fine Basswood** Flavor Honey at same price; also in 270-lb. barrels.

☞ A sample of either honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

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Operates two sawmills that cut, annually, eight million feet of lumber, thus securing the best lumber at the lowest price for the manufacture of

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that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polisht on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equipt with best machinery, all combine to enable this firm to furnish the

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Mr. Abbott sells our Hives and Sections at Factory Prices.

That Queen-Clipping Device Free!

Works Like a Charm.

The Monette Queen-Clipping Device WORKS LIKE A CHARM. With it I have clipped 30 queens, all in one day, when examining my bees. WM. STOLLEY, Grand Island, Nebr.

Couldn't Do Without It.

I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now.

DR. GEO. LACKE, Newburgh, Ind.

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For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 24 cents per pound, CASH; or 27 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly,** for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,

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M. H. HUNT, Bell Branch, Mich.

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Full Colonies for Sale

30 miles northwest of Chicago, in 9-frame Langstroth hives. Bees in good condition. Only a few colonies. Too warm to ship long distance. Prices—$5.00 per colony; 5 colonies, at $4.75 each; or 10 colonies at $4.50 each.

GEORGE W. YORK & CO.,
CHICAGO, ILLS.

The Nickel Plate Road

Has been selected by Commander-in-Chief Clarkson for the transportation of himself and staff to the G. A. R. Encampment to be held at Buffalo, N. Y., Aug. 23rd to 28th. Tickets will be on sale Aug. 21st, 22nd and 23rd at the rate of $10.50 for the round trip.

This will afford an opportunity to the comrades now living in the great West and Northwest to once more visit the home of friends, and shake hands with those with whom they fought shoulder to shoulder in the great Civil War.

For full information call on, or address,

J. Y. CALAHAN, Gen'l Agent,
111 Adams St., Chicago, Ill.
H. THORNE, C. P. & T. A.
111 Adams St., Chicago, Ill. 21

filled, too. Brood-chamber looks ready to bust!

"Now," thinks I to myself, "I'll just put an empty super in the place of that filled one, and fool 'em!" This morning, early, I prepared one and placed it, and I have no doubt from the present prospect they'll fill it, too. If they do, that will be 96 sections for one colony. Of course, that isn't 500 pounds, but I'll be satisfied.

And here is the sequel: I had just finisht my work, took off my veil, let the smoker smudge out, and was contemplating the wonderful nature of bees, when I heard around me a persistent whispering, coming nearer and nearer. Then I noticed that it was one of those self-sacrificing Italians flirting with me, just as if I were a young man, telling me all sorts of things, in a high soprano key.

Of course I resented such familiarity (my wife was looking just then), but (do you know?) that bee stubbornly persisted, and before I could prevent it she kist me—a hot one—right on my lips—the forward thing!

I tried to explain my innocence to my "better half," but she only winkt her other eye, intimating that she knew a thing or two, and my excuses wouldn't go. Now, I leave it to you, Mr. Editor, were I really to blame?

Cook Co., Ill., July 29. E. M. DEE.

[Yes, we think you were just a little to blame. You should never notice a "flirting Italian," no matter how much she "whispers" to you. Next time keep your veil on until you are safely in the house, and your "better half" won't have occasion to wink either eye at you. —EDITOR.]

Doing Well in New Mexico.

I have 112 colonies of bees doing well. I have 95 cases of 24-pounds to the case taken off, and 40 more to take off next week; and I give the American Bee Journal due credit for some of my success. It is choice alfalfa honey, and another flow of alfalfa to hear from yet.

EDWARD SCOGGIN.
Eddy Co., New Mex., July 25.

Sweet Clover.

Melilotus alba bears a close resemblance to alfalfa, but it is "larger and coarser every way, and is especially adapted for use on calcarious soils. It will make an excellent growth on lime lands, even on the 'rotten limstone' hills and on soils so barren that they will sustain no other plants; but it is of almost no value on the red clays and the sandy pine woods soils, which contain little lime. It is a biennial plant, making ordinarily only a moderate growth the first season, but during the second season it will grow from four to seven feet in height, if not cut, and make stronger and heavier roots than any other forage plant. At the end of the second season it matures its seed and dies and the roots then decay quickly."

As regards its uses, "It is not generally liked by animals unaccustomed to it, but as it starts into growth very early in the spring, when other green forage is scarce, stock turned on it at that time soon acquire a taste for it and eat it readily through the remainder of the season. When grown for hay, one and sometimes

Foundation —Sections— Hives or any Other Supplies.

If you are in a **rush,** send me your order. I sell **the best only,** and fill orders promptly at LOWEST PRICE. **Beeswax wanted in exchange.**

Working Wax into Foundation for CASH A Specialty.

☞ Write for Catalog and Price-List, with Samples of Foundation and Sections.

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AUGUSTA, WIS.

SEE THAT WINK!

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Pouder's Honey-Jars, and every thing used by bee-keepers. Prompt service, low freight rate. Cat free. Walter S. Pouder,
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Thin Flat-Bottom Foundation
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Being the cleanest is usually worked the quickest of any Foundation made

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Sole Manufacturer,
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They Combine the Virtues of a Medicine Chest.

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46 Water St SENECA FALLS, N. Y
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Italian Queens By Return Mail.

Untested, 50c.; Tested, $1.00.
Nuclei, 2 frame, $2.00, including a good Queen
Bees by the Pound.

E. L. CARRINGTON,
22Atf **De Funiak Springs, Fla.**

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A few 25-pound boxes of VanDeusen Thin Super Comb Foundation at $11.00 per box. Be quick if you want a box of it. Address,

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Employ Nature

The best physician to heal your ills. Send for FREE Pamphlet explaining how diseases of the Blood, Skin, Liver, Kidneys and Lungs can be cured without drugs.

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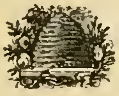
—A GENUINE—
Egg Preservative

That will keep Hen's Eggs perfectly through warm weather, just as good as fresh ones for cooking and frosting. One man paid 10 cents a dozen for the eggs he preserved, and then later sold them for 25 cents a dozen. You can preserve them for about **1 cent per dozen.** Now is the time to do it, while eggs are cheap.

Address for Circular giving further information—
Dr. A. B. MASON,
3512 Monroe Street, - TOLEDO, OHIO.

FOR SALE.

1000 pounds of White Clover Comb Honey.
Price, 13½ cts. per pound.
28A **Edw. E. Smith, Carpenter, Ill.**
Mention the American Bee Journal.



Bee-Hives, Sections, Shipping-Cases—everything used by bee-keepers. Orders filled promptly. Send for catalog MINNESOTA BEE-KEEPERS' SUPPLY MFG. CO., Nicollet Island, Minneapolis, Minn.
22Atf CHAS. MONDENG, Mgr.
Mention the American Bee Journal.

500 NATURAL SWARMING QUEENS

At 50 cts. each; ½ doz., $2.80. Tested Queens at 75 cts. each.
The above are all choice, natural-swarming Queens, saved during the swarming season.
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29Dtf FT. JENNINGS, OHIO.

"Queens Given Away."

Gray Carniolans and Golden Italians.

We will give a fine Tested Queen (either race) to all customers ordering 6 Untested Queens, and a fine Select Tested Queen to all who order 12 Untested Queens at one time. The Queens given away will be sent to customers in August.

Grade and Prices of Bees and Queens	April May June	July Aug. Sept.
Untested Queen	$ .75	$ .65
Tested "	1.50	1.25
Select Tested Queen	2.50	2.25
Best Imported "	5.00	4.00
One L Frame Nucleus (no Queen)	.75	.50
Two " " "	1.50	1.00
Full Colony of Bees " (in new dovetailed hive)	5.00	4.00

We **guarantee** our Bees to be free from all diseases, and to give entire satisfaction.
Descriptive Price-List Free.

F. A. Lockhart & Co., LAKE GEORGE, N. Y.
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Thorough Courses — Normal, Commercial, Ladies Literary, Shorthand and Typewriting. Efficient and experienced instructors. Day and Night sessions. **Send for Catalog.**

Prof. LEWIS EDWIN YORK, Pres.

two crops can be cut in the fall after sowing in the spring, and during the next season two or three crops may be cut. Unless cut early the stems become hard and woody, and in all cases care is necessary in handling in order to prevent the loss of leaves, which readily drop from the stems. Excellent hay may be made by sowing it on lands which have been set in Johnson grass, the mixture seeming to improve the palatability of either one." Under such cultivation as much as three cuttings to the acre and two tons for each cutting have been made.

Further points regarding this plant are these: "As a restorative crop, for yellow loam and white lime lands, this plant has no superior, and for black prairie soil it has no equal. The roots are very long, penetrating the soil to a depth of three or four feet, are quite large, and by their decay at the end of the second year leave the soil with innumerable, minute holes which act as drains to carry off the surplus water and loosen the soil so that the roots of other crops can go deeper, find more abundant supplies of food, and bear drought better. While the hay from this plant will not sell as well as that from lespedeza, the crop is heavier, furnishes pasture earlier in the spring, and is by far the most valuable crop we have for a natural fertilizer. Seed should be sown in August or February at the rate of half a bushel per acre."

Melilotus alba is not generally much known among us yet, but properly handled it is a success, having special fitness for some situations, and deserving in most places to be at least made the subject of careful and intelligent experiments.—Home and Farm.

Bees Did Well

Bees have done well here this season. I will get between 800 and 1,000 pounds of honey. I sold the first yesterday at 15 cents per section. I had 20 colonies of bees last spring.

B. F. BEHELER.
Summers Co., W. Va., July 24.

Bee-Keeping in Indian Territory.

Bees are doing fine this weather. I transferred my 10 colonies in early spring into 8-frame Dovetail hives, and prevented swarming by using supers. My bees did better this year than ever before.

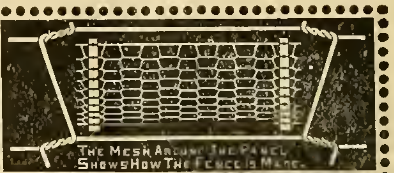
The old Bee Journal comes regularly every week. I am always glad when Friday comes. Long may it and its editor prosper.

I have to hire all my work done about my bees. My brother does it, and I do all the scheming. I work for a grocery firm from 6 in the morning to 9 at night, so you see I have no time to work with bees. I workt in the mines before I started to work here. I could take a day off once in awhile then and attend to my bees, but now it is work every day but Sunday. ROBT. WILLIAMSON.

Choctaw Nation, Ind. Ter., July 24.

Getting Possession of a Swarm.

Is there any law concerning bees when they swarm on a stranger's land? What right does law give a man, if his bees should settle on a stranger's land? My bees swarmed July 9, and settled in a


The Mesh Around The Panel Shows How The Fence is Made.

A FENCE THAT CAN'T SAG.
is the **KEYSTONE FENCE.** It is constructed with a special view to taking up all slack by **expanding** and **contracting** as required by **any** degree of **heat** or **cold.** It is 25 to 58 inches high and will **turn anything but wind and water.** Book on fence construction sent **free.**
KEYSTONE WOVEN WIRE FENCE CO.,
No. 3 Rush St., PEORIA, ILL.
Mention the American Bee Journal.

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If you care to know of its Fruits, Flowers Climate or Resources, send for a Sample Copy of California's Favorite Paper—

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The leading Horticultural and Agricultural paper of the Pacific Coast. Published weekly, handsomely illustrated 00 per annum. Sample Copy Free.

PACIFIC RURAL PRESS,
220 Market St., - SAN FRANCISCO, CAL.
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Golden Beauties and 3-Banded
Or IMPORTED STOCK.
Silver-Gray Carniolans.

Untested, 50c.; Tested, 75c. Safe arrival guaranteed. Address,
Judge E. Y. TERRAL & CO.
26Atf CAMERON, TEXAS.
Mention the American Bee Journal.

HARNESS FOR FARMERS

All kinds direct to consumers from the factory at wholesale prices. We save you 40% on HARNESS, BUGGIES, ROAD CARTS, SURREYS AND PHAETONS.

$5.50.

FIRST CLASS GOODS.
LOW PRICES.

Barkley Harness	$ 4.50	up.
Barkley Buggies	27.50	up.
Barkley Road Carts	10.00	up.
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Write for Special Bargain Circular of staple Harness and Vehicles.

DEFY COMPETITION.

Read our book of voluntary testimonials from our customers, and see what they think of Barkley goods and business methods. It will pay you to do so. We are selling direct to consumers, saving you the traveling man's expenses and dealer's profit. Send for cat. and prices

Reduced to $41. Former Price $55.00

No. 1 "Barkley" Harness, $5.50 Best value ever offered. Good as any $12.00 shop harness made.

Famous "Barkley" Buggy, $41.00. Satisfaction guaranteed.

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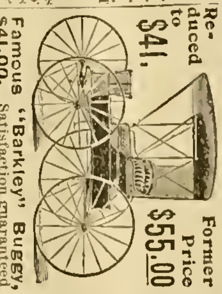

vacant lot. My wife traced them to the spot, and they settled. My neighbor had the privilege of keeping his chickens on this lot, from the owner. He would not let me enter this lot to get my bees, so I went to the owner, who gave me a written permit to get my bees from his lot, but my neighbor would not let me get them. So I went to a lawyer to make out papers for the constable to get my bees. We got the bees back, but the trouble was not ended. My neighbor was determined to claim the bees because he *captured them.* He appealed, and we went before a justice who decided the case in my favor. Now he is likely to appeal again. I would like to have the law publisht in the Bee Journal for the benefit of its readers.

Bees did not get any honey here this year. AUG. BACHMANN.

King Co., Wash., July 23.

[Such cases can only be determined in court, if any objection is made to the supposed owner taking his property when found. But it would seem to be hardly worth while to go to law over a swarm of bees.—EDITOR.]

SEND FOR SUMMER OUTINGS

along the line of the Nickel Plate Road. Three through trains daily between Chicago. Fort Wayne. Cleveland. Erie. Buffalo. New York and Boston. Unsurpast facilities for the comfort of the traveling public. All the delicacies of the season served on Dining Car.

Call on or address, J. Y. CALLAHAN, Gen'l Agent. 111 Adams St., Chicago, Ill. Depot 12th and Clark Sts. 25

Texas Queens !

By return mail. Best honey-gathering strain in America. Untested, 75c. Select Warranted, $1.00. **J. D. GIVENS, Lisbon, Tex.**

9A26t *Mention the American Bee Journal*

Bee-Keepers' Photograph.—We have now on hand a limited number of excellent photographs of prominent bee-keepers—a number of pictures on one card. The likeness of 49 of them are shown on one of the photographs, and 121 on the other. We will send them, postpaid, for 30 cts. a card, mailing from the 121 kind first; then after they are all gone, we will send the 49 kind. So those who order first will get the most "faces" for their money. Send orders to the Bee Journal office.

Illinois.—The annual meeting of the Northern Illinois Bee-Keepers' Association will be held at the Court House in Freeport. Tuesday, Aug. 17, 1897. All are cordially invited. B. KENNEDY, Sec.

New Milford, Ill.

Queens and Queen-Rearing.—If you want to know how to have queens fertilized in upper stories while the old queen is still laying below; how you may *safely introduce* any queen, at any time of the year when bees can fly; all about the different races of bees; all about shipping queens, queen-cages, candy for queen-cages, etc.; all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know—send for Doolittle's "Scientific Queen-Rearing"—a book of over 170 pages, which is as interesting as a story. Here are some good offers of this book:

Bound in cloth, postpaid, $1.00; or clubbed with the BEE JOURNAL for one year—both for only $1.75; or given free as a premium for sending us *two* new subscribers to the BEE JOURNAL for a year at $1.00 each.

Bee-Keeper's Guide—see page 496.

HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., July 30.—Some few lots of the new crop of white comb has come on the market and sold at 12c. Lots not strictly nice may fail to bring this figure. Very little sale for extracted honey of any kind. Prices range from 5@6c. for white, 4@5c. for amber, and dark 3½c. Beeswax steady at 26@27c.

Cincinnati, Ohio, July 30.—There is a fair demand for extracted and comb honey. We have disposed already of a number of arrivals of fine quality. We quote 11½@13c. as the range for choice comb honey; 3½@6c. for extracted. Demand is fair for beeswax at 22@25c, for good to choice yellow.

Boston, Mass., July 26. — Fancy new comb. in cartons, 14c.; No. 1. in cartons, 12 to 13c. Extracted, white, 6 to 7c.; light amber, 5 to 5½c.

Our market is well cleaned up on old honey, and new is coming slowly. The demand is light.

Milwaukee, Wis., July 26.—Fancy white, 12 to 13c.; No. 1, 10 to 11c.; fancy amber, 8 to 10c.; No. 1, 7 to 8c.; fancy dark, 7 to 8c. Extracted, white, 5 to 6c.; amber, 4 to 4½c. Beeswax, 25 to 27c.

The remnants of old crop honey remaining are not very large, and mostly of common and medium quality, and such is very hard to sell at any price. There has been some new extracted received, but not of the BEST quality—think it was extracted too soon, as it is thin and watery, and not very salable. The demand is as good as usual at this season. Think we are safe in holding out encouragement to shippers that for the new crop of choice qualities of comb and extracted honey this market will give them as good results as any other.

Philadelphia, Pa., July 27.—Fancy white, 12 to 13c; No 1. 10 to 11c.; fancy amber, 9 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 4c. Beeswax, 25c.

New honey, both comb and extracted, is arriving in small quantities. Good authority places California crop at 300 cars. Prices will rule low, California honey selling at 3½c. for mixt cars of light and amber extracted.

Buffalo, N. Y., July 26. — Fancy white, new, 11 to 12c; No. 1, 10 to 11c.; fancy amber, 8 to 9c.; No. 1 7 to 8c.; No. 1 dark, 6 to 8c. Extracted white, 5 to 6c.; amber, 4 to 5c. Beeswax, 24 to 27c.

Few arrivals; new selling fairly well. Old is cleaned up, and moderate amounts of new can now be sold. Ship in crates of, say, 150 pounds, with handles on same, and well secured.

Cleveland, Ohio, July 24.—Fancy white, 11 to 12c.; No. 1, 10c.; fancy amber, 7c.; fancy dark, 6c.

Our first shipment of new honey just arrived, and selling at 13c. No demand for old honey, but new, we believe, is going to sell fairly well.

St. Louis, Mo., July 27.—Fancy white, 12 to 12½c.; No. 1, 11 to 11½c.; No. 1 amber, 9 to 10½c.; No. 1 dark, 6 to 8c. Extracted, white, 4¾ to 5¼c.; amber, 4 to 4½c.; dark, 3 to 4c. Beeswax, 24 to 24½c.

Extracted honey in barrels has been selling fairly well for two weeks, We sold 4,500 pounds of amber last week at 4½c.

Indianapolis, Ind., July 24.—Fancy white 10 to 12½c.; No 1, 9 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c. Beeswax, 25 to 27c.

Fair demand in the jobbing way for grades mentioned above. No demand at all for dark or amber comb honey.

Kansas City, Mo., July 26.—No. 1 white, 12 to 13c.; fancy amber, 11 to 12c.; No. 1. 10 to 11c.; fancy dark, 9 to 10c.; No. 1, 6 to 8c. Extracted, white, 5 to 5½c.; amber, 4½ to 5c.; dark, 3½ to 4c. Beeswax, 25 to 30c.

San Francisco, Calif., July 21.—White comb, 1-lbs., 7 to 9c.; amber comb, 4 to 6c. Extracted, white, 4½ to 5c.; light amber, 3½ to 4c.; dark tule, 2¾c. Beeswax, fair to choice, 25-26c.

There is some inquiry, but no special activity to record, it being difficult to get buyers and sellers to agree on terms. Shippers are not disposed to name over 4½c. for extracted, and they want a fine article at that figure. In a local way slightly better prices are realized, but demand on home account is of slight order.

New York, N. Y., July 29.—Our market is bare of comb honey, and some demand for white at from 10-11c. Market on extracted is rather weak; demand slow of late, and arrivals plenty. We quote: Southern, average common grade, 50c. per gallon; better grades from 55-60c.; California, light amber, 4½-4¾c.; white, 5-5¼c. Beeswax remains steady at 26-27c.

Detroit, Mich., July 31—Fancy white, 11-12c.; No. 1 white, 10-11c.; fancy amber, 9-10; No. 1 amber, 8-9c. White, extracted, 5-6c.; amber, 4-5c. Beeswax, 25-26c.

Honey is not selling very brisk just now on account of the fruit.

Albany, N. Y., July 31.—Fancy white, 11@12c.; fancy amber, 7@8c.; fancy dark, 6@8c.; white, extracted, 5c; dark, 4c.

But very little is doing in honey this month. There is a small stock of inferior comb honey on the market, and quite a little extracted. Bees are said to be doing nicely in this section.

Minneapolis, Minn., July 31. — Fancy white, 12@14c.; No. 1 white, 11@12c.; fancy amber, 10@11c; No. 1 amber, 9@10c.; fancy dark, 8@9c.; No. 1 dark, 7@8c. Extracted, white, 6@7c.; amber, 5@6c.; dark, 4@5c. Beeswax, 24@27c.

Demand for extracted honey is nominal, but at fair prices. Comb very slow on account of warm weather.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.

R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.

HILDRETH BROS. & SEGELKEN.
120 & 122 W. Broadway.

Kansas City, Mo.

C. C. CLEMOMS & Co., 423 Walnut St.

Buffalo, N. Y.

BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.

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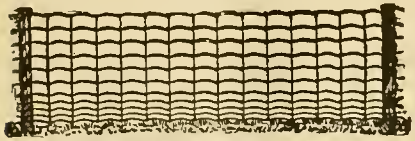

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Contributed Articles

Honey-Prices—Some "Fool Capers" Described

BY EDWIN BEVINS.

Just look at the honey-prices in late issues of the bee-papers, Mr. Bee-Keeper, and say how you like them. Looks as if the man who will spend time and money to build up an apiary for the production of honey to sell at these prices might be a fool. To add to my disgust and discouragement with the business, there comes a man calling himself "New York," asking bee-keepers to go into the work of lengthening the tongues of bees.

Edwin Bevins.

Now it seems to me that if the head end of the bee is to be lengthened, the tail end will be correspondingly lengthened, and I submit it to any sensible bee-keeper if that end is not long enough already! Mr. Doolittle expresses the opinion that this lengthening is hardly possible with the rank and file of bee-keepers, but leaves us to infer that it may be done by the Captains, and Colonels, and Brigadier Generals, and Generals, of the industry. Therefore, I move that somebody get out an injunction to restrain them from undertaking the job. Notwithstanding the apparent folly of trying to produce honey at present prices, and the possibility that the tail end of the bee may be lengthened, and perhaps strengthened, it is quite likely that if I live 20 years longer I shall write a book at the end of that time narrating my experience with bees during these 20 years, and entitle the book "The Mysteries and Miseries of Bee-Keeping." More likely, however, I will call it "A Fool's Errand," and explain its authorship as Judge Tourgee explained the authorship of his book, by saying that it was written by one of the fools.

You see, once a bee-keeper always a bee-keeper. Or, in other words, once a bee-crank or bee-fool, if you please, always a bee crank or fool. There is no getting out of this work till one is let out of it by death or let into a lunatic asylum. This is due to those things a bee-keeper will not sell for cash even if he can, you know. And this is a good place to remark that while there are a few things of this sort connected with the pursuit, I have found this season, and other seasons, a good many things that I would gladly sell at a discount of 99 per cent., and some others on which I would make a discount of a full 100 per cent., and throw in something besides for the sake of getting them *off my hands*. This last remark might not have been written if the bees in my yard were not so largely made up of a crop between blacks and Italians.

I want to ask the pardon of the American Bee Journal readers for ever having written a word about bees and bee-keeping. The man who gets a few colonies of bees and reads all, or a good many of, the bee-books and bee-papers, and works along through several years of light honey-flow, or no flow at all, may imagine that he knows something about these things. Then let him find himself some June morning with half a hundred to a hundred colonies on his hands, and the bees filling up his hives and supers with bewildering rapidity, and the conceit will soon be taken out of him. He begins to realize that he does not know much of anything, and that what he does know is hard to make available at just the right time and in just the right place.

Therefore, readers of the American Bee Journal, I bid you good-bye for 20 years......After all, I guess that, before I get out of sight and hearing, I had better "holler back" and tell you about some of my "fool capers" during this season of 1897.

This has been a first rate season to note the unreasonable and unnecessary and unexpected things that bees will do when prosperity gives them the opportunity to do as they please. Did any of you ever notice, or rather ever fail to notice, the persistency with which bees will monkey around a hole that would admit them to honey if it were only just as big again? But this is a digression. I started to tell you about some fool capers.

STARTING THE ROBBER-BEES.

First, and worst perhaps, of these fool capers was leaving some honey exposed in the early part of the season where the bees could have access to it. Since then some robber-bees have followed almost everywhere, and apparently took note of everything I have done. If I put on a bee-escape in the early part of the day, they hunt for holes and crevices, and have nearly cleaned out three or four supers for me.

The big extracting hives have telescope covers. These covers are made a little larger than the supers. Once when I put a bee-escape under one of these supers, the bees crawled up between the sides of the super and the sides of the cover and cleaned out the 10 frames which must have contained at least 30 pounds of honey.

HIVING BEES ON EMPTY FRAMES.

Next in heinousness was the hiving of a large swarm of bees on frames 11 inches deep with only starters of foundation. This was done last season, but the consequences were not made apparent till this season. The colony was strong last spring, and I was expecting much from it, but for some reason it would not begin to work in the supers. I gave the hive an examination, and the combs were all broken down but one. I prepared another hive and placed it on the old stand, and then placed the old hive with these broken combs on top of it. There was a good deal of brood in the old combs, and when it was hatcht I removed the upper hive and gave the bees below a queen after ascertaining that there was no brood in the lower frames. The loss in consequence of my failure to fill those frames last season with sheets of wired foundation I estimate at 100 pounds of honey, judging by what other colonies of like strength have done.

GETTING RID OF A LAYING-WORKER

One of my oldest colonies in a big 10-frame hive, which seemed to be all right in the spring, did not get to work when the other bees did, and on looking for the cause I found no worker-brood in the hive but lots of drone-brood scattered all over the combs. Laying worker! Then I took the hive and set it over that hive which contained the bees that would not work on old foundation, but put combs between the division-board and one side of the hive. I put a newspaper between the two hives, tearing a small hole in the paper. After a few days I found the bees all living together peaceably, and a big hole in the newspaper. Then I set the upper hive in the place of the lower one, making sure that the queen was in the upper hive, and carried the lower hive to a new stand. All the field-bees returned to the old stand, but lots of young bees staid, and there was a good deal of brood in the old combs, and the frames that I had given early in the season. At the first opportunity I stuck a queen-cell onto those old combs, and now all goes merry as a marriage bell in that hive.

AN EXPERIENCE IN FORMING NUCLEI.

On June 10 I made two 2-frame nuclei of bees and brood in anticipation of receiving queens to give them in the course of three or four days. But floods in Massachusetts and freezes in New York delayed the arrival of the queens, and I didn't know what to do. A colony standing close to one of these nuclei swarmed the day the nuclei were made, and the swarm got away because I lingered 15 minutes too long in the garden that morning. I got into the bee-yard just in time to see the last bees of the cluster letting go of their hold on a limb of a peach tree. I could not tell at the time from which hive the swarm had issued, but by observing carefully I found out that day or the next. I paid no more attention to the colony or the nuclei till June 21, when the colony swarmed again. Then I went in search of queen-cells, and found a frame having two with queens just ready to emerge. One did emerge and dropt to the ground, and I pickt her up and threw her into the hive standing close by that containing the nucleus. In due time I lookt in and saw a circular patch of worker-brood on one of the combs. The other cell I gave to the other nucleus, and on looking for worker-brood I found the two combs pretty well covered with drone-brood. Another case of laying worker. Then I took one frame of this drone-brood and put it in place of a frame containing eggs and larvæ in another hive, and gave the eggs and larvæ to the nucleus, and now all goes well with it.

SOME SWARMING EXPERIENCES.

Here are a few swarming experiences of the present season:

One morning I hived a very small after-swarm, and about the time it got settled another swarm of moderate size came and entered the same hive. Then I put the hive with the two swarms on top of a queenless colony and left the bees to settle things to suit themselves. I reckon there was a royal battle, and also reckon that the majority of the bees cared no more about what was going on than the majority of the people of England did when the fight waxt hot between York and Lancaster. Now things are going on normally in that once queenless hive.

One day I hived a swarm, and after remaining a little while the bees began to swarm out. Then I closed the entrance and placed the hive on top of another queenless colony. A late examination shows the colony to be queenless yet. So I reckon the swarm was queenless.

Again, I have not had the number of natural swarms that I expected, and I have lost heavily on account of runaway swarms. If swarms would stay after they are hived it would not be so bad, but several of my best ones have struck out soon after hiving, and others after they have staid and workt three or four days. These hived swarms might perhaps have been made to stay if I had known enough to give them a frame of unsealed brood. We have a bee-keeper's word that they will stay under such circumstances, but I did not always think of it till it was too late.

I lost a few swarms by not being on hand when they came out. I am beginning to shake my head a good deal over this natural-swarming business; "commencing to divide," and that queen-clipping device, are not remote possibilities.

Having observed the reluctance with which bees work through bee-zinc, I believe I have no great use for queen-traps and queen-excluders.

BIG HIVES GIVE BEST RESULTS.

I think I shall have to chronicle the fact that my bees in 10-frame hives, whether of standard or deeper depth, have given me best results in honey this season. No swarming of any account from these hives, but the work of storing honey went steadily forward while there was any to store. Many colonies in the 8 frame hives have done well, and, on the other hand, too many of them have done nothing, or next to nothing. When I could catch a colony swarming, and hive the swarm on starters of foundation, and place the swarm on the old stand, I have got considerable surplus from the swarms. But in these days of low prices and uncertain honey-flows I will not practice what is called "contraction." There seems to be lots more monkeying with bees in order to secure the last ounce of surplus to place upon an overstockt market than results will justify.

PRODUCE ONLY EXTRACTED HONEY.

Somehow, rightfully or wrongfully, extracted honey is a discredited thing, selling in the great markets down with cane sugar, when it *ought* to be more sought after, and sell for nearly or quite as good a price as comb honey. I am going to chronicle my opinion that extracted honey is the only kind of honey that ought to be produced. I am aware that from this opinion there will be a numerous and loud dissent, but nevertheless this will remain my opinion. I am not going to argue the question with anybody, but will just call attention to one point in its favor, viz.: It will keep indefinitely.

But where am I at? I will tell you about some more foolishness.

GIVING TOO MUCH STORAGE-ROOM.

One of the things which I did, which may have bad consequences, was to give too much room for the storage of surplus honey. It did not seem to be too much at the time, but storing having ceast, or nearly so, I am likely to have a great lot of unfinisht sections. I am reducing the number of supers to one on a hive as fast as possible, but it looks now as if these will not be filled, and so there is small chance that the sections I am now taking off will get anything more put into them this season. If this condition of things is general, the season may turn out to be an unprofitable one after all the promise of middle and later June.

SMOKING BEES AT THE HIVE-ENTRANCE.

The matter I am about to mention is somewhat foreign to anything I have been saying, but I cannot refrain from asking what is this we hear from Doolittle? He says that he always smokes the bees a little at the entrance when putting on and taking off supers. Does that have to be done in a yard full of golden beauties? I do not smoke at the entrance once in a hundred times, and hardly ever get stung when putting on and taking off supers.

And now, my bee-keeping friends—if I have any, and, if I may presume to call you such—having "hollered back" all you care to hear, and more, perhaps, I will bid you again good-bye for 20 years. Decatur Co., Iowa, July 26.

Will of the Workers—Summer Management.

BY L. A. ASPINWALL.

Altho it is generally understood that the economy of the hive is under the control of the workers, still, not a few believe that such matters in which the queen performs a part or function, she may exert a positive guiding influence: notably, such instances as swarming, leaving the hive for mating, and, altho to a less degree, in her individual function—egg-laying. Seemingly the possessor of a sole function should also possess the right to exercise or use it. In considering the matter of egg-laying we have a greater opportunity to ascertain many facts pertaining to the executive or governing power of the workers than in that of swarming, or mating of queens. We can begin the season with a small brood-nest and carefully note all actions until swarming takes place.

During the breeding season doubtless many have noticed the queen surrounded by a few workers, apparently paying her tokens of respect, and much has been written in confirmation of such theories. However, an examination of the colony previous to or after the breeding season will reveal a fact that the workers pay no more attention to the queen than to each other. Still, if deprived of her presence, they display evident signs of the loss. This, however, simply shows her important relation to the colony, which is recognized by the course of action taken by the bees.

When the breeding season approaches, the nurse-bees supply the queen with an increast amount of food, stimulating the ovaries to action and bringing about the laying of eggs. This stimulative feeding is increast until the height of the breeding season is reacht, at which time her size and brilliancy are much greater than at any other period of the year. A few days previous to swarming this supply of food is withheld, and with the issuing of the swarm we find her much reduced in size, also greatly inferior as regards color. So this retinue surrounding the egg-layer is not doing obeisance, but utilizing their powers of digestion to the furtherance of brood-rearing, and are servants, not only to the queen, but the colony.

I sometimes regard the queen as the greater servant, comparing her to the honey-ant, which is only a living receptacle filled by the worker ants until the abdomen becomes distended to an enormous size. Such is the relation of the queen to the colony—she subserves the will of the workers, and in so doing promotes the general welfare.

The drones are also brought into existence by the same will, which, when the requirements of the colony are such as to render them useless, not only withhold their accustomed food, but drive them from the hive to perish.

If this executive or governing power of the workers is displayed in the general economy of the hive—comb-building, breeding and honey-gathering—involving an immense detail of work, and the display of various functions, we may logically conclude that it is exercised in swarming and mating of queens. As instance, I once had a prime or first swarm issue two or three hours after removing the old queen, the preparations (finisht and unfinisht queen-cells) for swarming being complete. That instance proved beyond a doubt (to my mind) that the queen simply unites with and is subject to the will of the workers in swarming as in egg-laying.

As regards the mating of queens, I have abundant proof that the workers govern in this matter also. I have a great many times witnest young queens as they left for mating, and in numerous instances the workers prest or urged the queen to take flight. Notwithstanding this urgent persuasion, they often manifest great consternation during her absence. This is but natural when we consider that the perpetuity of the colony depends upon her safe return. Queens sometimes leave and return several times before accomplishing their object. Upon several such occasions I have seen the workers prevent their entering the hive and by force compel them to take flight again. I take this opportunity to remark that the queen is exceedingly timid when leaving for the purpose of mating and most carefully marks the location of her abode.

SMOKERS AND SMOKER FUEL.

I well recall the days of primitive smokers; Quinby's original being a plain tin tube about five-eights of an inch in diameter, five or six inches long, and provided with a plug at each end. One was sufficiently long to serve as a mouth-piece and removable for filling and cleaning the tube. Through each was bored a small hole for the passage of air and smoke. Tobacco was used as fuel.

Mr. Quinby's addition of a bellows certainly markt a new era and obviated the intense strain caused by constant blowing through the mouth-piece to keep it ignited. I now use the Bingham smoker and regard it perfect in construction and working. While I have no special fuel to recommend, that which produces the largest and most satisfactory volume of smoke is from spongy or partially decayed wood (notably white birch), but it also produces the greatest accumulation of carbon or sooty condensation. To remove the accumulation, a little gasoline poured into the barrel and cone will aid in burning it out. Separate them (take off the cover), using two or three teaspoonfuls for each, and carefully ignite, using a long stick. A single application will soften it and two or three will burn it to a crisp. I usually scrape out the accumulation after being softened, which lessens the amount to be burned. Care should be exercised not to burn the bellows. It is needless, perhaps, to add that this method of cleaning should only be undertaken when all fire and heat are absent.

The prevention of condensation causing the accumulation is extremely desirable, and far outweighs any method of removal. Thus far I have obtained a reasonable degree of success, and believe we shall yet have a complete preventive. My present plan is to use a little beeswax within the cone. By reason of the heat it spreads rapidly over the entire inner surface and to a great extent prevents adhesion of the carbon particles. And yet I have not tried paraffine wax, but believe it will answer, altho it melts at a lower temperature and possibly will need replenishing more frequently. It certainly is less expensive.

BUSY BEES NOT SO IRRITABLE.

All bee-keepers of experience notice a gradual change in the disposition of bees as the season advances, when they become more irascible. The temper of all creatures largely depends upon whether they are occupied or idle. During the honey-yield irritability manifests itself much less than in times of failure. While our bees are occupied we are also moving more frequently among them. At this season the fielders are rapidly wearing out. Their wings are reduced in many instances to half their original size; and, in consequence, they become fatigued, alighting upon the ground at various distances from the hives. In walking among them the casual observer will fail to see these veteran toilers, and in consequence many will be trodden upon. A few crusht bees, whether under a super or upon the ground, will call others in defense. I am exceedingly careful in this respect, and avoid as much as possible the treading upon or injuring a bee, altho it may have outlived its usefulness. As stated in a previous article, I use no bee-veil; neither do I possess one, and I attribute the amiability of bees very much to humane methods in their management.

IMPORTANCE OF PROPOLIS.

Altho much prejudice exists against propolis as a coating of the hive, making it impervious to air and consequent dampness, we ought not to lose sight of its importance. Certainly nature provided the proper material to carpet the home of the bee. Aside from its use as a cement or gum, it serves as a foothold, and without its use I believe comb honey would be somewhat darker through compulsory travel upon it. The bee can walk and cling to propolis or wax more easily than upon board surfaces. However, we measure its importance from our standpoint, and altho perfectly adapted to the requirements of the bee, still we feel as tho the frames are less movable, and our fingers and clothing become soiled by it.

REMOVING PROPOLIS FROM CLOTHING.

I append this item more especially to furnish the reader a simple plan for removing it from clothing. Having used it for three years I cannot recommend it too highly as completely removing every trace from any fabric. It is simply to rub the soiled portion with a small piece of ice, when in less than a half minute it is rendered brittle, passing imperceptibly away. —Bee-Keepers' Review.

Are Black Bees Capable of Improvement?

BY G. M. DOOLITTLE.

QUES.—"Having read your articles in the American Bee Journal for years, I have learned to look upon you as candid in your opinions and expressions, so I wish you would tell us through the columns of the above-named paper if you do not think the effect of breeding, on black bees, would have been just as markt as on the Italian, had the same untiring energy been spent in their improvement? In other words, would not black queens now be larger, finer, and more prolific, had such a course been pursued?"

ANS.—The above came to me a few days ago, and as a few words on the subject of the improvement of our bees may not be amiss, I will, with the editor's permission, give a few thoughts on the same.

Probably there would have been some improvement in the black or German bee, had the apiarists of the United States taken hold of the matter with the same will in breeding which they have shown in breeding the Italian bee up to its present standard. But I do not think that the effect would have been as markt on the German bee as it has on the Italian, for the reason that the black or German bee is a fixt race or variety, while the Italian bee is nothing more than a thoroughbred, or hybrid, in my opinion. Any race of animals which is fixt and constant in its breeding, cannot be improved nearly so easily as can one which is liable to sport. The same holds good in the vegetable kingdom, all of our best varieties of vegetables being obtained from "sports."

Breed black queens as carefully as you may, they will not vary a particle as to color, while the Italian queens vary from a queen nearly if not quite as dark as any black queen, to one whose abdomen is of an orange yellow throughout its whole length; hence those who have bred for beauty as well as other qualities have been able to succeed in producing queens that will give *all* yellow queens every time, and whose worker progeny are nearly as yellow as were the best of queens a score of years ago. Those who have paid no attention to color-breeding have seen their bees go from those with three yellow bands back to bees with scarcely a bit of yellow on them; and yet we often hear people talking about "pure" Italian bees. If Italian bees are a pure race they are given to sporting beyond any other known *pure* thing. It seems to me it is impossible for these bees to be anything else than a thoroughbred. This inclination to sport as to color gave the assurance that they would sport as to quality as well, so we have breeders who have workt for a very industrious bee, and have seen industry come to the front with them.

Others have workt for wintering qualities, gentleness in handling, white capping of section honey, etc., and still others for a combining of *all* the good qualities which go to make the perfect bee in every respect, seeing this work so prosper that, to-day, take it all in all, the Italian bee, as bred in the United States, undoubtedly stands at the head of all the bees known to the world. This is evidenced by calls coming for them from all parts of the world; and could they be shipt the same as can non-perishable articles, there would not be a country on the face of the earth, where bees could exist, where they would not be found.

Now, the same thing which keeps the black bees from sporting as to color, hinders them from sporting in other directions desired by the bee-keeper, so that, to a certain extent, they are nearly if not quite identically the same as they were when they first left the hands of the Creator. There is a certain amount of improvement by the "survival of the fittest," and yet such improvement has not advanced these bees as much during all the centuries which have past as has the hand of man the Italians during the past 35 years; nor has the hand of man ever made as much improvement on them during all the long past as has been made with the Italians during the last 10 years.

There is one thing which I wish to notice in the correspondent's communication before closing. He wishes to know whether the black queens would not be "*larger*, *finer*, and more *prolific*," had the right course of breeding been pursued. All of my experience goes to prove than an exceedingly large queen is rarely if ever as good as one of medium size; and if it is meant that a large queen is "finer" than one not so large, I must differ from the one asking the question.

A very large queen seems to be less active than a medium-sized queen, and so far as my experience goes they cannot be depended upon to bring the colony up to the greatest strength at the pleasure of the apiarist so well as can queens of lesser size. In fact, a very small queen will often give much better results than these large ones.

Not long ago I received about the smallest queen I ever saw from a party in the South who wrote, "This queen is very small, but seems to be prolific, so we send her to you. If she does not prove good we will send another." Well, that queen filled her hive with brood, and kept it filled much better than any of the other queens the party sent me, and gave splendid results, thus proving that large size in a queen was not of so much advantage as many suppose.

The old saying, that "You cannot tell by the looks of a toad how far it can jump," applies equally as well to a queen as to other things. The queen that is capable of producing the desired number of worker-bees in just the right time for honey-harvest, and these workers have the desired energy in securing the harvest (all minor qualities being equal) is the queen which will give the best results, be she large or small; but, as a rule, the real moneyed results will generally go with the queen of medium size, for she is the most apt to give the bees as above. Onondago Co., N. Y.

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The Bees of Borneo and the East.

BY G. D. HAVILAND.

The genus Apis, the honey-comb builders, may be conveniently divided into three parts,—the small bees, the big bees, and the medium-sized bees.

1.—The small bees, whose workers are less than 3/8 of an inch in length; their nest is exposed, attacht to a twig from six to 15 feet above the ground, and consists of a single small comb, which the bees, when frightened, temporarily forsake. The queen is at once distinguisht by the comparatively enormous size of the thorax; the drones, too, are very different from the drones of other bees, the dense velvet down on the thorax being wanting, and the abdomen narrower and more curved, but the most curious are the large blunt lobes or pegs on the tarsal segments of the posterior legs, arising from its anterior upper margin and passing downwards, no rudiment or trace of which can be seen in ordinary drones. These bees are found only in tropical Asia and the islands of the Malay Archipelago; owing to their small size they are of no use to bee-keepers or to bee-hunters. Only one species is known—Apis florea.

2.—The big bees, whose workers are more than 5/8 of an inch in length; these, too, have their nest exposed, and composed of only a single comb, but this is a large one and generally placed on inaccessible cliffs or large unclimbable trees, tho occasionally in more accessible places. Owing to the position of their nests and the size of their stings these bees can successfully drive off all enemies by day. They, too, are found only in tropical Asia and the islands of the Malay Archipelago. Owing to the quantity of wax in their large comb, it is highly valued by natives, but these bees are not domesticated. Apis dorsata is the common, well-known species, found as far eastward as the Isle of Timore. Apis zonata is a little known species, found only, I think, in the Island of Celebes.

3.—The medium-sized bees, whose workers are more than 3/8 of an inch and less than 5/8 of an inch in length; their nests are always sheltered in hives, in hollow trees, in roofs of houses, or some such places; they build several parallel combs, and consists of species, varieties and races, scattered over the whole of the habitable old world.

Apis indica, the smallest and one of the most distinct, is found in tropical Asia and the islands of the Malay Archipelago.

Apis unicolor, small, dark in color, and distinct from others, is found in Madagascar.

From Africa comes Apis adansonii; from Egypt, Apis fasciata; from Europe, Apis mellifica; from China, Apis sinensis. Almost every country has a special variety or race; sometimes these, when brought together, inter-breed, but sometimes two can be found in the same country which appear to keep distant.

Up this Sarawak River are four species of Apis, viz:

1.—APIS FLOREA.—I saw this bee in Ceylon, it seemed rare in the hill country, but very common near Anuraadhapoora, where, on their nests being disturbed, the bees fled without stinging, so that Cinghalese boys have no difficulty in eating their honey, and Mr. Davison tells me that the same is the case in the south of India; but here, altho the bees readily leave their combs, they will sting as well and more effectually than their size would lead one to expect. I have not yet caught a drone here as the wet season is on, and there are no drones now. The workers of these bees vary greatly in the color of their abdomen, the most common thing is for the two basal segments of the abdomen to be colored, and the others black, but in the same nest will be found some without a bit of color in the abdomen, and some in which nearly all the segments of the abdomen are colored. Has Mr. Benton been guilty of this atrocity, or will some amateur detective find another culprit in this matter?

2.—APIS DORSATA.—I have not noticed any difference between this bee and the one like it which I saw in Ceylon, except that in Ceylon it was quite absent from the flat country round Anuraadhapoora, but here is common both in the low country and in the hills. The workers usually have the two basal segments of the abdomen colored, the other segments black, except for a gray band quite at their base; but some workers have the third segment colored, and some have the whole upper surface of the abdomen colored. I saw quite a number of these last on a nest I examined through a telescope, but could see no drones, I suppose because it is the wet season, yet swarms of these bees are frequently seen flying overhead.

3.—APIS INDICA.—The commonest bee here, length of the worker 7/16 of an inch; these bees do not vary much in the color of the abdomen, in the majority the scutellum is colored, but in many it is not. At this time of year there are no drones. The bees do not store much honey, they have no winter to go through, and many enemies, so they prefer breeding and swarming. They are very quiet bees, quieter than two colonies of indica which I examined in Ceylon; they can be easily manipulated without smoke, but they readily take to the wing—the queen as well as the workers—so that it is impossible to drive them. Four times I have tried transferring to bar-framed hive, and once the simple removal of the queen, in every case they forsook the hive and all their brood a few days after, but the wet season was on, and the quantity of their brood not large. Amongst the enemies of these bees is a species of Trigona, yellow and black, and small in size, this, finding its way through the cracks in a Dyak hive, establishes itself in the upper regions of the comb, builds a wall between itself and the owner of the honey, behind which it eats the honey, leaving the midrib of the comb quite bare, and in places destroying this too. I opened two hives attackt by this small bee, and in neither case did I find any of their brood, but the Dyaks thought they sometimes had brood in the hives, but say that a few months after the Trigona comes, the Apis generally forsakes its hive.

4.—APIS FLAVA.—The proper name of this bee I do not know, so for the present I will use the above name: the workers are at once recognized by their bright yellow color; their head is yellow, their thorax densely clothed with long yellow hairs, and the ground color of the thorax is yellow, their length is 9\16 of an inch, slightly larger, I think, than an English bee. The drones are not very yellow, the queen not at all so—she is but little larger than a queen of indica. I have examined three nests of these bees, in one were drones hatching and hatcht, the drone-cells, tho larger than the worker-cells, and furnisht with the convex capping, were mixt irregularly with the worker-cells, not together on a special portion of comb. The colonies are small, and not quite so good-tempered as those of Apis indica, but with the help of smoke are not difficult to deal with. Whilst manipulating I have noticed Apis flava to rob from Apis indica; and I have seen Apis indica trying to rob from Apis flava, but I have not found Apis dorsata, or any wasp out here, trying to rob, tho Apis dorsata frequently comes to drink close to my colonies of Apis indica.

Malays, Chinese, Klings and Europeans here all give bees a wide berth. Dyaks alone keep them. Their knowledge of their habits is much like that of the old Romans; they talk of the Rajah, tho probably few have seen her. The drones they call badorken, but have no idea that they are the males, or that the rajah lays eggs.

A nest of dorsata the Dyaks highly value. They eat the brood, but sell the wax, and the honey, too, if they can, to Malays, who trade up the river. They take the nests by building ladders up the tree or cliff. Ascending these on a moonless night, they hold a torch beneath the nest and drive off the bewildered bees before cutting down the comb. Next day the bees leave the place and try their fortunes elsewhere. There is a right of ownership of nests on favorite trees or cliffs. Colonies of Apis indica they keep in hives made of bark, or hollow logs of wood, narrow, but two to three feet long, with the entrance in the middle suspended lengthwise from the floors of their houses, which are raised many feet from the ground on poles. They take the honey and brood at night, driving the bees out of their hives by means of smoke. Next day the bees leave the place. Apis flava they seldom put in hives, for they say it gives less honey and brood than Apis indica. Apis florea I believe they usually avoid.

The Malays call Apis florea "Peniangat," a word which is applied to small social wasps also, and is their name for the sting of an insect. The Dyak name is "Titi," which is also used for small solitary bees. Apis dorsata is called by Malays "Lanye;" by Dyaks, "Bunyee." Dyaks cannot pronounce "L" except at the end of a word, so when speaking Malay they say "Ranyee." Apis indica is called by Dyaks "Newaan," or often up other rivers, "Ranewaan." The proper Malay name is "Lebah," but I have not heard it used here, the Malays commonly using the Dyak name. Apis flava is distinguisht by Dyaks as "Newaan pschear" (?), or the "yellow Newaan."—British Bee Journal.

Sarawak, January.

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Influence of Pollen upon Size, Form, Color and Flavor of Fruits.

BY PROF. J. C. WHITTEN.

(Read before the Missouri State Horticultural Society.)

Before considering the subject of pollination, it is necessary to get clearly in mind the relation and arrangement of the different parts of the flower.

The ordinary complete flower is composed of calyx, corolla, stamens, and pistils, in the order named. The apple flower is a good representative. The calyx is the green, outer cup. It is the cover of the unopened bud and expands as the flower opens, into five parts, or sepals. Just within the calyx is the carolla, consisting of five pink petals. This is the most conspicuous and ornamental part of the flower. Just within the corolla are the essential or reproductive organs. They consist of about twenty stamens, and a five-parted pistil. The stamens are slender filaments, surmounted each by a little sack containing the pollen. These are the male organs. The pistil is the central, female organ of the flower. It consists of a five-celled ovary, bearing the undeveloped seeds, and five thread-like styles, arising from it, and terminating each in a fleshy surface, called the stigma. Some plants do not produce both stamens and pistils in the same flower. In the Indian corn the pistils are the silk at the ear, while the stamens are borne in the tassels at the top of the plant. Our pine trees bear two classes of little cones, or flowers, in spring. One kind bears the stamen, and is shed off after the pollen has been produced. The other kind bears the pistils, and, after being acted upon by the pollen of the male cones, develops into the large cone from which we secure the seed. Other plants, like the box-elder, soft maple, persimmon and cottonwood bear the different sexes upon separate individuals. This is also the case with many varieties of strawberries. The ornamental corolla is wanting in many flowers, so also may be the calyx. Each species, however, must always produce stamens and pistils, either in the same, or in different flowers. These, being the reproductive organs of the plant, are as essential to the production of fruit and seeds, as are the two sexes essential to reproduction in the animal kingdom.

The existence of sex, in plants, has long been known. Vague hints of it occur even in the writings of Greek and Roman authors. It was not until about two-hundred years ago, however, that its existence became clearly defined. Even then, this view was much disputed, and it was not until the collection of proofs of the sexuality of plants, given by Linnæus, in 1735, that the question became a settled one.

When it first became known that pollination in plants was a necessity for the production of seed, very vague ideas prevailed as to how the pollen was carried from the stamens to the pistils. This, at first, excited little more thought than the mere idea that the pollen simply fell on the pistils. When it was considered that in some cases, the stamens and pistils are borne on separate plants a new question arose, as to how the pollen was transferred over such great distances. It was found that pistillate plants, growing at a distance from any stamen-bearing plants of the same kind, frequently produced seed. The agency by which the pollen was transferred in such cases, was, at first, ascribed to the wind. A little later it was suggested that, since some flowers contain honey, and are visited by bees, the insects might be of some use in pollination. It was not thought, however, that this affected cross-pollination, the idea being that they simply shook the pollen from the stamens to the pistil, in an individual flower.

The very important part, which insects take in the cross-pollination of plants, was not much known until about one-hundred years ago. At this time Sprengel was led to begin a great number of observations, which showed not only that insects carry pollen from flower to flower, but that the bright colors, scents, and singular forms of flowers serve the useful purpose of guiding insects to their secreted honey. His keen observations are of exceeding interest. He noticed the tiny hairs beneath which honey lies hid, in a little wild geranium, and found, that, while these hairs in no way hinder bees from taking the honey, they effectually turned away the rain drops from the nectaries. From this he reacht the conclusion that the honey was secreted for the bees and that the rain was kept out that they might have the nectar pure and unspoilt. Noting the little yellow ring in the throat of the forget-me-not, he conceived the idea that this might guide the insects on their way to the honey. Upon further investigation he found that the colored dots, lines and other figures surrounding or pointing toward the honey, actually do serve as honey-guides, or path-finders for the insects.

Thus perceiving that the insect is guided to the nectar, once it has settled on the flower, he went still farther, and reacht the wise conclusion that the bright-colored corolla itself is to guide the insect, from a distance to the flower. Thus it is that the beauty of our peach, plum and apple blossoms serves, not only to gladden the eye, but also to attract these insect pollen-bearers. Up to this time it was supposed that honey was secreted by flowers, simply to furnish a food for insects, and no one even supposed that the insects returned an equivalent service to the flower. Sprengel, however, observed that certain varieties of Iris are incapable of being pollinated and of producing seed, if insects are excluded from them. This led to his further discovery that a great many flowers depend wholly upon insects for transferring the pollen.

In all of Sprengle's work, it is perhaps remarkable that he failed to learn the most important lesson which his years of patient study and observation might have taught. While he was well aware of the fact that insects frequently carry pollen from flower to flower, he failed to learn that cross-pollination is the most important result of insect visits. This great truth remained to be first hinted at by Andrew Knight. After experimenting in self-fertilization and cross-fertilization in the pea, and other plants, Knight, in 1799, laid down the law that in no plant does self-fertilization continue for an unlimited number of generations. This theory attracted very little attention until nearly fifty years ago when Darwin came forward with his exhaustive experiments and studies, from which he interpreted the natural law that "no organic being fertilizes itself for a perpetuity of generations, but a cross with another individual is occasionally—perhaps at very long intervals—indispensable." Darwin showed that in all the higher forms of animals the sexes are separate, in order that two different sources of blood, of relationship, may be combined in the off-spring. He also showed what we now so generally admit, that in-breeding diminishes strength and productiveness, while a cross with a different strain increases both.

[Concluded next week.]

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Swarming—Queen "Fainting."

About a week ago I had a swarm come out very early in the morning, and the queen did not come out. The wind was commencing to blow hard, and they went right back. The wind blew hard all day—sort of a Nebraska zephyr—and as it went down about seven in the evening, they tried it again with the same result. While they were on a tree I opened the hive and found the queen (her wing was clipt), and waited for them to try it again the next morning, which they did about seven; and they surprised me by coming out with a *young* queen. She came out with the first handful of bees; I caught her and hung the cage on a bush right in front of the hive, and they never lookt at her, but immediately stopt coming out, and those that were out went back. Then I divided them, but could not find the old queen. I carefully cut out all queen-cells, and used them in starting nuclei.

In four days I examined them, and found no signs of a laying-queen in either hive, and no queen-cells started. I gave them laying queens, and now everything is lovely.

1. Why did they kill their queen?

2. Why did they not start queen-cells?

During those four days they stored honey to "beat the band."

3. Twice in clipping queens this season, the queen has fainted, or "played possum," once before and once after the wing was clipt. I placed their cage upon the frames, and they seemed to "come to" and be all right inside of an hour. In each case she had not been laying more than a day or two, and while they were lying apparently dead, there would be a slight twitching of the abdomen, and eggs would appear. I handled them very carefully in the clipping device. There happened to be a worker in with them each time. How do you account for this singular performance?

NEBRASKA.

ANSWERS.—1. When a prime swarm issues, if the colony is strong and circumstances favorable a second swarm may be expected in a week or ten days later. If the queen cannot accompany the swarm, the bees will continue the attempt to swarm, sometimes every day, sometimes not so often, but when a young queen emerges then the "old lady" is disposed of, and the bees go with the one that has flying powers. You will probably find that what your bees did will be the regular program in all cases with clipt queens, if the bees are left to themselves.

2. "Bees do nothing invariably," and perhaps without any reason they sometimes fail to start queen-cells when you think they should. In the present case there may have been no need to start cells for young queens may have been present. Four days from the time of emerging, these young queens would not yet be laying, but the bees would work with vigor, and having no larvæ to feed would store with unusual rapidity. It is possible that the queens you gave to the two colonies were retained, but it is probable that they were killed and the young queens commenced to lay eight or ten days after the last swarming.

3. From what others say, it seems this "fainting" of the queen is not a very unusual occurrence, altho I never saw a case of the kind in the hundreds of queens I have clipt. Possibly the manner in which the queen is held at the time of clipping may have something to do with the case. I have never seen but one explanation suggested, and I don't know whether that is the right one. It is that the queen in her struggles gets her foot caught in the terminal opening of the abdomen, and being held fast in that position either does not or cannot make any further struggle. When the foot is releast by relaxation, then she is all right again.

The Buffalo Convention Notice has been sent us by Secretary Mason, and reads as follows:

STA. B, TOLEDO, Ohio, July 5, 1897.

MR. EDITOR:—Will you please say in the next issue of the American Bee Journal that the next annual convention of the United States Bee-Keepers' Union will be held in the Main Hall of Caton's Business College, corner of Main and Huron Streets, in Buffalo, N. Y., commencing at 10 o'clock, a.m., of Aug. 24 next, and closing on the afternoon of the 26th?

Papers are to be read by W. Z. Hutchinson, R. F. Holtermann, E. Whitcomb, Hon. R. L. Taylor, Mrs. L. Harrison, R. C. Aikin, G. M. Doolittle, Dr. J. P. H. Brown, Hon. Eugene Secor, Geo. W. Brodbeck, M. B. Holmes, A. E. Manum, E. Kretchmer and P. H. Elwood; to which will be added the President's Address, and perhaps the General Manager and the Secretary may have something of interest to present.

The programs are now printed and in the hands of the Secretary. There are six bee-keepers' songs, with music, in the program, and abundance of time is allotted to the discussion of all papers, and for the asking and answering of questions.

Any one not a member of the Union can have a program sent them by mail on receipt of 5 cents in postage stamps by the Secretary.

Several of our well known bee-keepers, such as A. I. Root, Dr. Miller, S. T. Pettit and others who are not on the program, will be present to help make the convention interesting and instructive.

It is probable that suggestions will be made at this convention in the line of so amending the constitution of the Union as to remove its objectionable features and add such other provisions as may seem desirable, and suggestions in this line by those not able to be at the convention can be sent to the Secretary, to be brought before it. Some suggestions have already been received by the Secretary, and others have been made in the bee-papers.

Those going to the convention should buy round-trip tickets to the Grand Army of the Republic encampment (not to the United States Bee-Keepers' convention), which meets at Buffalo during the last week of August. The G. A. R. have secured a rate of one cent a mile each way in the territory of the Central Passenger Committee, which is included by Toronto, Canada, thence on a line to Port Huron, Mich., all of the southern peninsula of Michigan; Chicago, Peoria and Quincy, Ill., St. Louis, Mo., Louisville, Ky., and Pittsburg, Pa. The Western Passenger Association and the Trunk Line Association make a rate of one fare for the round-trip in their territory to places in the Central Passenger Association, from which points the fare will be one cent a mile each way, but tickets must be purchast to Buffalo from the starting point. Enquire of your ticket or station agent in all territory outside of the above-named for rates and the time the tickets are good for, for I have been unable to learn the rates in such territory, but presume it will be the same as that of the Western Passenger and the Trunk Line Association; but be sure to inquire of your ticket agent as above suggested.

In the Central Passenger and Trunk Line territory tickets will be good going on the 21st, 22nd and 23rd, and if vised at Buffalo will be good, returning, for 30 days.

Mr. O. L. Hershiser, of Buffalo, has charge of arrangements at Buffalo, and will attend to the matter of hotel rates. He writes: "I purpose obtaining accommodations in private families for all bee-keepers who prefer such to hotels." Members of the Union can learn in regard to hotel rates by applying to the Secretary at the place of meeting. If known in time, hotel rates will be given in the bee-periodicals.

A. B. MASON, *Sec.*

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

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GEORGE W. YORK, - Editor.

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Next Annual Meeting at Buffalo, N. Y., Aug. 24–26, 1897.

Vol. XXXVII. CHICAGO, ILL., AUG. 12, 1897. No. 32.

Editorial Comments.

Buffalo, Aug. 24, 25 and 26—the place and date. Will *you* be there?

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The Season's Experience will now be a fine topic to write on for many a bee-keeper. And we shall be glad to report in these columns anything that may prove helpful to others. Each can help the other by telling how he managed his apiary for the best results. Others have helpt you by their writings, now why not you return the favor, or pass it on to those who are now the learners or beginners?

◆

A Special Car of Bee-Keepers.—Lately several of our friends have askt us when and by what route we expect to go to Buffalo, to attend the bee-keepers' convention. We had intended going a few days before the meeting, and stopping off to see our near and dear relatives in northeastern Ohio, but we have been compelled to change that intention, and now expect to leave Chicago on the Nickel Plate railroad at 3:05 p.m., Monday, Aug. 23, arriving at Buffalo at 8 o'clock the next morning, in time for the opening of the convention at 10 a.m., as per the printed program.

Since deciding as above, we have wondered if it were not possible for the bee-keepers around Chicago, and those from the West who will pass through here on their way to Buffalo, to make up a special car on the Nickel Plate, and go on together from here. We find that we can have a sleeping car for such purpose at $10.50 for the round trip per passenger, and the berth $1.50 extra, tickets with special return privilege of extension to Sept. 20. But there need to be at least 25 persons to go thus together in order to have the special car; however, 30 or 35 *can* comfortably get into the car. Of course, ladies will be welcome to go thus as well as the gentlemen. Bring your wives and daughters. It will be a grand trip.

But shall we all go in that special car? What do those bee-keepers who expect to go say about it? We'd all have a fine trip together—from 3:05 p.m. Monday till 8 o'clock the next day.

Now, let all who will join in this, write us at least by Friday, Aug. 20, so that we can fully complete the arrangements. We will attend to getting your tickets and sleeping-car berths, if you will send us the necessary $12 to do it with, and have everything ready when you get here Monday. Come on, friends.

◆

Honey-Tea.—Mention is made in German papers of an old man who attributes his hearty vigor in extreme old age largely to the use of what he calls honey-tea. Many will find upon trial that this same drink will be for them wholesome and refreshing. Take a teacup of hot water, put into it extracted honey in quantity to suit the taste, and there is your honey-tea all ready to sip. If extracted honey is not at hand, the liquid part drained from comb honey may be used, or even a piece cut from comb honey, only in the latter case the wax as well as the honey is present. If children must have a hot drink this will be much better for them than a decoction of coffee or tea. So says an exchange, and wisely, too.

◆

The Illinois Pure-Food Laws.—Mr. Herman F. Moore, a young Illinois attorney and honey-dealer, copied the pure-food laws in force in this State, and forwarded them for publication in Gleanings. They are as follows:

Criminal Code, § 471: Be it enacted, etc., that no person shall mix, color, stain, or powder, or order or permit any other person in his or her employ to mix, color, or stain, or powder any article of food with any ingredient or material, so as to render the article injurious to health, or *deprecate* the *value* thereof, with intent that the same may be sold; and no person shall sell or offer for sale any such article so mixt, colored, stained, or powdered.

§ 473. MIXT ARTICLES TO BE MARKT.

No person shall mix, color, stain, or powder any article of food, drink, or medicine with any other ingredient or material, whether injurious to health or not, for the purpose of gain or profit, or sell or offer for sale, or order or permit any other person to sell or offer for sale any article so mixt, colored, stained, or powdered, unless the same be so manufactured, used, or sold, or offered for sale under its true and appropriate name, and notice that the same is *mixt or impure* is *markt, printed,* or *stampt upon each package*, roll, parcel, or vessel containing the same, so as to be and remain at all times readily visible; or unless the person purchasing the same is fully informed by the seller of the true name and ingredients (if other than such as are known by the common name thereof) of such article of food, drink, or medicine, at the time of making sale thereof or offering to sell the same.

§ 475. PENALTIES FOR VIOLATIONS HEREOF.

Any person convicted of violating any provisions of any of the foregoing sections of this act shall, for the *first offense*, be fined not less than *$25.00* nor more than *$200*. For the *second offense* he shall be fined not less than *$100* nor more than *$200*, or confined in the county jail not less than *one month* nor more than *six months*, or both, at the discretion of the court; and for the *third* and *all subsequent* offenses he shall be fined not less than *$500* nor more than *$2,000*, and imprisoned in the penitentiary not less than one year nor more than five years.

It was Mr. C. P. Dadant's suggestion that the New Union first begin the enforcement of present laws, and see if much of the honey-adulteration could not be stopt without working for more stringent laws. It seems to us that with such a law as the above on the Illinois statute books, the New Union ought to be able to do something along the line indicated. Of course, it takes money to do such work, and there ought to be at least $500 in the treasury before any attempt is made to prosecute adulterators. Yes, $1,000 would be better.

It seems to us that if bee-keepers want to see the fight begun, they should first roll their dollars into the treasury so that General Manager Secor could feel safe in going ahead. If in the next 30 days 500 bee-keepers should join the New Union, we believe they would very soon have the satisfaction of knowing that a few honey adulterators had been put where they won't repeat the offense.

Just as soon as the New Union is ready to begin the fight, we will procure samples of the stuff sold for "pure honey" here in Chicago, and turn them over for analysis as we may be directed.

But let's *first* raise that fund for prosecution. Send in your $1.00 membership fee now—to us if you prefer—and we will turn it over to the proper officer of the New Union. Then perhaps immediately after the Buffalo convention the war can be commenced. We are ready to furnish our share of the ammunition that shall put a quietus on the mixers of honey with glucose or other adulterant. What say you, reader? Will you join hands with us in this matter?

◆

The Langstroth Monument Fund is again brought up in Gleanings for Aug. 1. Mr. A. I. Root suggests that each bee-keeper send in at least 10 cents—but more if possible. We will agree to receive any amounts that may be forwarded to us, acknowledge them in the Bee Journal, and then forward for the monument.

As this has been a fairly good honey season for most bee-keepers, why not send 5 cents for each colony owned, spring count? If that were done, there would soon be ample funds for erecting a fine monument to mark the spot where lies all that was mortal of the loved and loving Langstroth.

Mr. Root also suggests that an inscription should be prepared in advance, so that when the time comes to use it, it will be ready. Here is what he says about this:

> And it occurs to me just now that some of our able men, friends of our benefactor, should meet together and suggest a suitable inscription. I have not consulted any one in regard to the matter, but I should like to have Dr. Miller and Manager Secor, and anybody else whom they might choose, get something appropriate for the tombstone. The whole wide world knows more or less of Langstroth; and people who visit the cemetery at Dayton, Ohio, will look up the place and will read with interest the inscription. When I was down East it gave me a rare thrill to be shown the burying-place of Noah Webster, the father of our old "elementary spelling-book." I cannot remember just how expensive a stone it was; but I was not only delighted to see it, but to tell the friends after I got home that I stood by the tomb of this, that, and the other great men whose memories we love and revere.

The Weekly Budget.

Mr. Wm. McEvoy and Wife, of Ontario, Canada, expect to be at the Buffalo convention. While they will represent the Canadian bee-keepers most admirably, still we hope to see a whole lot of the bee-folks from over there. Mr. McEvoy has a good many very warm friends in the United States; and you can safely take our word for it that Mrs. McEvoy deserves just as many as her worthy husband has. We hope Mr. McEvoy will not forget to bring J. B. Hall along with the rest of the crowd.

Gleanings in Bee-Culture has just been "changing its dress"—comes out in brand new type of bewitching "face" and "form." A new $2,500 printing press has also been added, upon which to reel off 2,200 impressions per hour. All of which bespeaks prosperity. Well, we're not so hard-hearted that we can't rejoice with those who do rejoice. The deserved success of others will not discourage us. Some day it will be *our* turn to take another advance step. We believe in making progress, but always want to be *sure* we can retain a position before we assume it. Of course, our excellent contemporary can *easily* do that, and very truly says: "While Gleanings does not claim to be the *best* bee-journal in the world, it has a right to claim that it 'keeps up with the procession,' both in subject-matter and in letter-press work."

Editor R. F. Holtermann, of the Canadian Bee Journal, writes us that on account of the exhibitions it will be inconvenient for him to attend the Buffalo meeting, but he thinks he has arranged it all right, and now expects to be there. He reports that several others in his locality also expect to be present. Good. We hope Canadian bee-keepers will be sure to get there, even if they have to swim the Lake over and back each day! Yes, there'll no doubt be a good showing of our cousins over the line. It looks now as if it were going to be a monster bee-convention. Mr. Hershiser will have his hands full to care for us all. But he'll do it all right. Just let everbody go, and help show to the world that American bee-keepers can do even better than those of Germany in the convention line.

Editor W. Z. Hutchinson, of the Bee-Keepers' Review, wrote us a kindly letter July 30, from which we take these sentences:

> I have been, and am yet, very busy. I have had quite a local supply trade this year, which has enabled me to close out about all of the sections and foundation I had on hand. I am thinking of going to the fairs again this fall, and that requires thought and work to get ready.
>
> Yes, the wife and daughter are improving, and I am enjoying myself more than I have before in months.

All will be glad to know that Mrs. Hutchinson and daughter are improving, and that Mr. H. himself is getting back to his normal condition. He expects to be at the Buffalo convention, of course.

Rev. Emerson T. Abbott, editor of the Busy Bee, writing us July 29, said:

> My Dear Bro. York:—I will try to do what you wish at the Buffalo meeting. I have just gotten out of bed again. I got over-heated unloading a car about two weeks ago, and it came very nearly doing me up. I am gaining all the time now, and hope to be in trim before the time to go to Buffalo. While I was in bed one of my sisters, who lived at home with father about three blocks from us, died, so that Mrs. Abbott had her hands and heart more than full. I was not able to get out and see her before she was laid away, which seemed very hard when I was so near to them.

We felt pretty certain Mr. Abbott would comply with the request to respond to the address of welcome to be delivered at the bee convention by the Mayor of Buffalo.

Mrs. Mate Williams, of Minnesota, we learn from the last number of Farm, Stock and Home, has been put in charge of its apiarian department. She is virtually the honored successor of the late B. Taylor, whose thoroughly practical articles were of such interest to readers of bee-papers during his latter years. Mrs. Williams is introduced as the new conductor of their bee-department, by the publishers, in these happy words:

> "Mrs. Mate Williams is a lady whose recent frequent communications have shown that what she knows of bee-keeping has been learned in the school of experience, supplemented by close observation, studies of the best authorities accessible, and an interest born of love for the avocation. It is very gratifying to put a woman in charge of this department, for bee-keeping seems to be particularly suited to the feminine head, heart and hands. It is hoped that the new bee-editor will awaken an increast interest in her art in the breast of thousands of her sister readers of Farm, Stock and Home, and that they in turn will do what they can to strengthen her in the work she has undertaken, by suggestions, counsel, and, if necessary, an occasional exercise of charity for some real or fancied error of judgment."

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Thirty Years Among the Bees, by Henry Alley.—Gives the results of over a quarter-century's experience in rearing queen-bees. Very latest work of the kind. Nearly 100 pages. Price, 50c.

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Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Bee-Escapes and Their Use.

Query 57.—Mr. Simmins' book condemns the use of bee-escapes, saying that putting them in position alarms the bees and makes them puncture holes in the cappings. 1. Have you found the same objection? 2. What other objection, if any, have you found?—NEBR.

R. L. Taylor—1. No. 2. No serious one.

Mrs. L. Harrison—I've had no experience.

J. M. Hambaugh—I have never used them.

E. France—We have no use for bee-escapes.

P. H. Elwood—My name is "Thomas" just here.

Chas. Dadant & Son—No. We like them very much.

J. E. Pond—I have never used them, so can give no opinion.

Jas. A. Stone—1. No, No. 2. None—but all things in their favor.

Dr. J. P. H. Brown—O well, that is only a Johnny Bull whimsicality.

Eugene Secor—1. No. 2. I have found no objection to escapes. They are all right.

Rev. M. Mahin—Not having any experience with bee-escapes, I can give no opinion.

Prof. A. J. Cook—I have found no objection to their use, and regard them a great aid.

A. F. Brown—I have used bee-escapes largely. If properly put on I have no trouble with holes punctured in cappings.

G. M. Doolittle—1. No, not to the same extent usually given by any other way of ridding the surplus honey of bees. 2. None.

Dr. A. B. Mason—1. No. 2. I have found no objection to their use, but great benefit and saving of time and labor by using them.

Dr. C. C. Miller—1. I think not. 2. The principal objection is, they work too slow. Where thieves abound they might be unsafe to leave on over night.

W. G. Larrabee—I have never found this or any other objection. I think they are a great help in taking off honey, especially at the end of the harvest when bees are liable to rob.

Emerson T. Abbott—1. No. 2. None. It seems to me folly to try to produce comb honey without the use of bee-escapes. Just as well try to farm without a harrow, using in its stead a bunch of brush to drag over the land.

C. H. Dibbern—Mr. Simmins is surely "away off" in this instance. I have removed thousands of pounds by means of bee-escapes, and have noticed particularly that puncturing the combs was much less than by any other method I have ever tried.

G. W. Demaree—In the honey season proper, the bee-escape works all right. After the honey-flow has *just* closed, and after there are no unsealed honey in

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scattering cells, the escape does not work so well. Use good judgment in its use, and you will find it a useful device in the apiary. Every useful device to save labor must be used intelligently.

H. D. Cutting—I never would think of producing comb honey without a good bee-escape, Simmins or no Simmins. If you cannot put a bee-escape under a super without the bees doing damage to the comb, you are a bungler, or are using a hive that should be discarded.

J. A. Green—There is no such objection. In fact, their use prevents just this thing, which is one of the reasons why they are valuable. There are some objections to their use, but the advantages gained are so great that they are hardly worth considering.

General Items.

Bees Doing First-Rate.

Bees in western Connecticut are doing first-rate this season. There is more white clover than there has been in ten years altogether. H. H. KNAPP.

Fairfield Co., Conn., July 26.

Honey Crop an Entire Failure.

The honey crop of Minnesota this year so far is an entire failure. I have about 200 colonies but not one pound of surplus honey so far. Caterpillars did it all.

F. GENT.

Wright Co., Minn., July 31.

Thinks He Did Well.

The honey season closed with July 15, but I did real well, at least I think I did, for I got 1225 pounds of nice white honey from 29 colonies, and increast to 51 by natural swarming, and put all second swarms back.

L. A. HAMMOND.

Washington Co., Md. Aug. 3.

Clover Yielded Well.

White Clover yielded well during July. Bees are booming at present on second crop of red clover, and there is considerable white clover still in bloom. Basswood did not yield any this season—only about one out of five trees bloomed at all.

F. L. MURRAY.

Lafayette Co., Wis., Aug. 2.

A Year of Plenty for Bees.

I am happy to report a year of plenty for the bees in this section. We have had so many off years that I did not expect anything out of the ordinary, but the bees seemed to know better than their keeper when to look for a honey flow, for they commenced to swarm and after-swarm, and the prime swarms would cast swarms until I was heartily sick of swarming. I did not want increase, so I have run them back and doubled up till every hive in the yard, supers and all, is brimful of bees. I am master of them at present, but these strong colonies—90 in number—might make it quite interesting for me yet.

I have been successful with the method or plan of uniting swarms in two hive-bodies for a day or two, and then drive them into one and pile on the supers. I hive after-swarms in a box on the parent colony, and shake them out the next day. It beats queen-cell cutting, two to one, for the swarming mania must be satisfied in some way, or they will sulk during the harvest.

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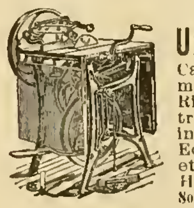

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Sad experience that of Emm Dee, in his honey-take and wide-frame mishap. No doubt the good Doctor will have a full bee-space under his chin-covering the next time, and his lamp trimmed ready for emergencies. Perhaps you might persuade him, Mr. York, to get a modern hive, with supers and bee-escape.

A. B. BAIRD.

Fayette Co., Pa., July 26.

Bees Booming.

My bees are booming. I have taken 3800 pounds of white clover honey.

G. F. DANIELS.

Will Co., Ill., Aug. 2.

Good Prospect for Fall Crop.

I have a fine lot of extracted white clover honey. Bees are still doing pretty well, and I think the prospect for a fall crop is good. J. W. SANDERS.

Marshall Co., Iowa, Aug. 2.

White Clover Nearly a Failure.

White honey is nearly a failure in this (Tompkins) county this year; too wet. Basswood was two weeks late, and it has rained for three weeks nearly every day —5 inches of water.

I shall be in Buffalo if it is possible. The convention comes in a very bad time. Buckwheat bloom will be in its height then. W. L. COGGSHALL.

Tompkins Co., N. Y., July 30.

Honey Crop Cut Short.

The continued dry weather during the first half of July, has cut our crop of honey very short—none to speak of. The linden bloom lasted only two or three days, tho the bloom was good; but two or three days of hot winds dried it up. Bees were in fine condition to gather a large crop. Just what the fall harvest is going to be we are unable to tell at this date. We got a little white clover honey, and that is all, and but a few new swarms. J. M. YOUNG.

Cass Co., Nebr., July 23.

A Report from West Virginia.

I commenced this season with 25 colonies, all black, but May was so cold and wet they dwindled all through the month, and did not build up to do much good till late in June, and during May and until June 20 we had such sudden cold winds; the sun would shine and the bees would fly out, when up would come a cloud with cold wind and rain, and thereby chill and cause a loss, perhaps half of the field-bees. About June 25 it turned warm, and still rained, and is still raining, so the bees cannot get out to the field half of the day, so our honey crop will be very short. Our bees did not begin to swarm till July 8—the latest I ever knew bees to swarm. I let 5 colonies swarm, then I stopt it.

I have gotten 100 one-pound sections harvested to date (July 22), and it is

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H. Thorne, C. P & T. A. 29

very fine honey, tho quite red and very thick and sweet. I take it to be clover honey. I think I will get one super of 28 one-pound sections filled by each colony, spring count.

I would be glad if some one would give an article in the American Bee Journal on color, taste and gravity of honey, of a few of the leading honey-plants.

Long live the "Old Reliable," as it is a welcome visitor every week. I could not do very well without it.

IRA SHOCKEY.

Randolph Co., W. Va., July 21.

◆

He Makes It a Big Success.

I made a trip with 100 sections of comb honey one day last week, and received $25 in cash for the 100. This was just fun for me and my noble horse. We will make another trip this week. I had a pretty good crop this year—28 colonies in the spring, and now have 49 to go into winter. Yes, you always send the Bee Journal right along, paid or not paid ; when I begin to sell honey or exhibit bees at a fair, it reminds me that the Journal pays itself. Neighbors and others wonder so much how in this world I manage to produce such a nice, large amount of comb honey, or even have bees on exhibition at a fair. Yes, and then when I pronounce or show the American Bee Journal, and say, "This is my guide," they look at me as tho they doubted it. E. B. KAUFFMAN.

Lancaster Co., Pa., July 26.

◆

Kerosine a Bee-Sting Remedy.

From time to time I see the question askt in the American Bee Journal about the best remedy for avoiding swelling from bee-stings. I will give a simple treatment, which I have found to be all right.

Having some 60 colonies I have had to work quite a little amongst the bees, and whenever I was stung my hands and arms would swell and be painful and irritate for 3 or 4 days. Having heard that kerosine was good for mosquito bites, I thought I would try it for bee-stings, and I have found it to overcome the swelling and pain. This is how I proceed before working on my hives :

I roll up my shirt sleeves, take the kerosine can and rub my hands and arms well with the oil. I then slip a pair of old stockings with the feet cut off (which I keep for the purpose) over my arms, and go to work, and tho I may get stung, I find there is no after swelling nor irritation. May be some of our fellow bee-keepers, whose skin is rather tender, may find this remedy a good one.

J. W. DENYER.

Middlesex Co., N. J.

◆

Poor Season in Minnesota.

In the Bee Journal July 29, under "Editorial Comments," it says that marketing a large honey crop will be the principal work of a good many bee-keepers during the next six months. But I tell you, Mr. Editor, if a change doesn't take place soon, the bee-keepers in Minnesota won't be troubled much in marketing their honey. The bees along in the forepart of June had to be fed or they would have died. The latter part of June and the forepart of July they did very well—stored honey in the brood-

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Read what J. I. PARENT, of CHARLTON, N. Y., says—"We cut with one of your Combined Machines, last winter 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will. Catalogue and Price - List Free. Address, W. F. & JOHN BARNES,
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3512 Monroe Street, - TOLEDO, OHIO.
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Minnesota.—The third annual meeting of the Southern Minnesota Bee-Keepers' Association will be held in Winona, Wednesday and Thursday, Sept. 15 and 16, 1897, opening at 9 o'clock, a.m., each day. All are cordially invited to come and bring their friends.

Winona, Minn. E. C. CORNWELL, Sec.

nests and started in the supers, having it in all stages, a little capt, but not much, and some had cases of 27 sections to the case nearly all filled with honey, but they didn't get any honey to finish them. They have only made their living for the last three weeks, with plenty of white clover and Alsike. I would not be surprised to see them taking the uncapt honey down to the brood-nest, but I suppose we must live in hopes of better times coming.

JOHN TURNBULL.
Houston Co., Minn., Aug. 4.

Bee-Keeping in West Virginia.

The season here has been wet and not very favorable. Spring count I had six colonies, which I have increast to 15. White clover has been very plentiful. From three colonies I have taken 85 one-pound sections of honey and sold them in the home market for $12.75. My bees are the Adel strain. I regard them as the best and hardiest I have ever had. Success to the American Bee Journal.

S. F. SAMPSON.
Greenbrier Co., W. Va., July 30.

Doctor's Hints

By Dr. PEIRO,

Central Music Hall, ⁂ CHICAGO, ILL.

Graceful Figure.—The nearer woman follows in the steps of Nature the most perfect will be her form and health. Tight lacing not only deforms an attractive body, but engenders conditions from which arise some of woman's most painful and fatal diseases. The better way to acquire a suple, willowy form and carriage is by daily, but gentle, physical exercises which can be learned from a variety of reliable text-books on the subject, which can be bought of any reliable book-store. The rubber gymnastic tubes, bought for a dollar or two, are very good and will last years. A book of directions accompanies the purchase. Persist in well doing.

Soft, White Hands.—All girls (and plenty of the other sex) are anxious to have them, and it is perfectly proper they should. Of course, playing tunes on the wash-board, digging "taters" and raking hay is not likely to bleach the hands or make them soft, but even where such work must be done the hands can be kept in excellent condition with a little care. If on going to bed you put a handful of bran in warm water, and soak the hands for ten minutes, dry well and apply this ointment, well rubbed in, you will notice excellent results:

Mutton suet, camphor gum, and nitrate of bismuth; a teasoonful of the last two ingredients to a pound of the suet, put in a cup and melt in a dish of hot water (not on the fire) and let cool. Rub a little of the ointment thoroughly over the hands (no damage from its use), then put on an old pair of kid gloves and remove them in the morning, briskly rubbing the hands before washing them in warm water and thoroughly drying. This should be done daily to keep the hands pliant and soft. In time the skin beomes like velvet, imparting a

A Book Recommended by Dr. Gallup.

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By W. E Forest, M. D., 12th Edition, Revised, Illustrated, and Enlarged. This is the greatest and best work ever publisht as a HOME PHYSICIAN, and as

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is illustrated with a number of Anatomical plates from the best English work on Anatomy publisht, and others made expressly for this work; contains 300 pages, printed on fine calendered paper, and although the price of the first edition (much smaller in size and without illustrations) was $2.50, we sell this at $1.00, postpaid.

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a delightful touch in shaking hands. Hence, you see, you can be very industrious and attractive, too.

The same pomade is as good for the face, if used as directed for the hands.

Postage Stamps.—If you do not receive a reply to your questions, when you write, you can know it is because you have not been thoughtful enough to at least enclose a stamp or two for return postage. The Doctor gives advice to the readers of the American Bee Journal, for which his usual fee in his office is never less than a couple of dollars, and if you are not willing to at least pay return postage, you need not expect a reply.

This is a common civility that you should never forget, when writing to any one, for information. It is these little proprieties that distinguish the well-bred from the careless and indifferent.

Artichokes.—I have been askt regarding them, whether they are poisonous or fit as food. I am pleased to assure every reader of the American Bee Journal that artichokes are delicious and extremely easy of cultivation. They have a finer grain and flavor than potatoes, are more digestible and quite prolific. They possess the great advantage—like the parsnip they somewhat resemble in taste—of improving in the ground over winter, and at their best when dug in the spring. But you can begin eating them in the fall. They should be boiled and served hot, like creamed potatoes. Every farmer or gardener should raise a quantity for family use. Their growth somewhat resembles that of the sunflower, tho not so large. It is the tubers, or roots, that are the edible part. Plant some, by all means.

Don't Spice the Children.—No, Mrs. Sinclair, it is unadvisable to allow children stimulating substances in their food—red pepper, mustard, or even considerable nutmeg and ginger. They are not only injurious to digestion, but too exciting to their tender nervous systems. These strong stimulants have, no doubt, been responsible for much evil, and should be avoided. Dr. Peiro.

Queens and Queen-Rearing.—If you want to know how to have queens fertilized in upper stories while the old queen is still laying below; how you may *safely introduce* any queen, at any time of the year when bees can fly; all about the different races of bees; all about shipping queens, queen-cages, candy for queen-cages, etc.; all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know—send for Doolittle's "Scientific Queen-Rearing"—a book of over 170 pages, which is as interesting as a story. Here are some good offers of this book:

Bound in cloth, postpaid, $1.00; or clubbed with the Bee Journal for one year—both for only $1.75; or given free as a premium for sending us *two* new subscribers to the Bee Journal for a year at $1.00 each.

Illinois.—The annual meeting of the Northern Illinois Bee-Keepers' Association will be held at the Court House in Freeport, Tuesday, Aug. 17, 1897. All are cordially invited. B. Kennedy, Sec.
New Milford, Ill.

Bee-Keeper's Guide—see page 512.

HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., July 30.—Some few lots of the new crop of white comb has come on the market and sold at 12c. Lots not strictly nice may fail to bring this figure. Very little sale for extracted honey of any kind. Prices range from 5@6c. for white, 4@5c. for amber, and dark 3½c. Beeswax steady at 26@27c.

Cincinnati, Ohio, July 30.—There is a fair demand for extracted and comb honey. We have disposed already of a number of arrivals of fine quality. We quote 11½@13c. as the range for choice comb honey; 3½@6c. for extracted. Demand is fair for beeswax at 22@25c. for good to choice yellow.

Boston, Mass., July 26. — Fancy new comb. in cartons, 14c.; No. 1, in cartons, 12 to 13c. Extracted, white, 6 to 7c.; light amber, 5 to 5½c.

Our market is well cleaned up on old honey, and new is coming slowly. The demand is light.

Milwaukee, Wis., July 26.—Fancy white, 12 to 13c.; No. 1, 10 to 11c; fancy amber, 8 to 10c.; No. 1, 7 to 8c; fancy dark, 7 to 8c. Extracted, white, 5 to 6c.; amber, 4 to 4½c. Beeswax, 25 to 27c.

The remnants of old crop honey remaining are not very large, and mostly of common and medium quality, and such is very hard to sell at any price. There has been some new extracted received, but not of the BEST quality—think it was extracted too soon, as it is thin and watery, and not very salable. The demand is as good as usual at this season. Think we are safe in holding out encouragement to shippers that for the new crop of choice qualities of comb and extracted honey this market will give them as good results as any other.

Philadelphia, Pa., July 27.—Fancy white, 12 to 13c; No 1, 10 to 11c.; fancy amber, 9 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 4c. Beeswax, 25c.

New honey, both comb and extracted, is arriving in small quantities. Good authority places California crop at 300 cars. Prices will rule low, California honey selling at 3½c. for mixt cars of light and amber extracted.

Buffalo, N. Y., July 26. — Fancy white, new, 11 to 12c; No. 1, 10 to 11c.; fancy amber, 8 to 9c.; No. 1 7 to 8c.; No. 1 dark, 6 to 8c. Extracted white, 5 to 6c.; amber, 4 to 5c. Beeswax, 24 to 27c.

Few arrivals; new selling fairly well. Old is cleaned up, and moderate amounts of new can now be sold. Ship in crates of, say, 150 pounds, with handles on same, and well secured.

Cleveland, Ohio, July 24.—Fancy white, 11 to 12c.; No. 1, 10c.; fancy amber, 7c.; fancy dark, 6c.

Our first shipment of new honey just arrived, and selling at 13c. No demand for old honey, but new, we believe, is going to sell fairly well.

St. Louis, Mo., July 27.—Fancy white, 12 to 12½c.; No. 1, 11 to 11½c.; No. 1 amber, 9 to 10½c.; No. 1 dark, 6 to 8c. Extracted, white, 4¾ to 5¼c.; amber, 4 to 4½c.; dark, 3 to 4c. Beeswax, 24 to 24½c.

Extracted honey in barrels has been selling fairly well for two weeks. We sold 4,500 pounds of amber last week at 4½c.

Indianapolis, Ind., July 24.—Fancy white 10 to 12½c.; No 1, 9 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c. Beeswax, 25 to 27c.

Fair demand in the jobbing way for grades mentioned above. No demand at all for dark or amber comb honey.

Kansas City, Mo., July 26.—No. 1 white, 12 to 13c; fancy amber, 11 to 12c.; No. 1, 10 to 11c.; fancy dark, 9 to 10c.; No. 1, 6 to 8c. Extracted, white, 5 to 5½c.; amber, 4½ to 5c.; dark, 3½ to 4c. Beeswax, 25 to 30c.

San Francisco, Calif., July 28.—White comb, 1-lbs., 7 to 9c.; amber comb, 4 to 6c. Extracted, white, 4½ to 5c.; light amber, 3½ to 4c.; dark tule, 2¾c. Beeswax, fair to choice, 25-26c.

There is some inquiry, but no special activity to record, it being difficult to get buyers and sellers to agree on terms. Shippers are not disposed to name over 4½c. for extracted, and they want a fine article at that figure. In a local way slightly better prices are realized, but demand on home account is of slight order.

New York, N. Y., July 29.—Our market is bare of comb honey, and some demand for white at from 10-11c. Market on extracted is rather weak; demand slow of late, and arrivals plenty. We quote: Southern, average common grade, 50c per gallon; better grades from 55-60c.; California light amber, 4½-4¾c.; white, 5-5¼c. Beeswax remains steady at 26-27c.

Detroit, Mich., July 31—Fancy white, 11-12c.; No. 1 white, 10-11c.; fancy amber, 9-10; No. 1 amber, 8-9c. White, extracted, 5-6c.; amber, 4-5c. Beeswax, 25-26c.

Honey is not selling very brisk just now on account of the fruit.

Albany, N. Y., July 31.—Fancy white, 11@12c.; fancy amber, 7@8c.; fancy dark, 6@8c.; white, extracted, 5c; dark, 4c.

But very little is doing in honey this month. There is a small stock of inferior comb honey on the market, and quite a little extracted. Bees are said to be doing nicely in this section.

Minneapolis, Minn., July 31. — Fancy white, 12@14c.; No. 1 white, 11@12c.; fancy amber, 10@11c; No. 1 amber, 9@10c.; fancy dark, 8@9c.; No. 1 dark, 7@8c. Extracted, white, 6@7c.; amber, 5@6c.; dark, 4@5c. Beeswax, 24@27c.

Demand for extracted honey is nominal, but at fair prices. Comb very slow on account of warm weather.

List of Honey and Beeswax Dealers.

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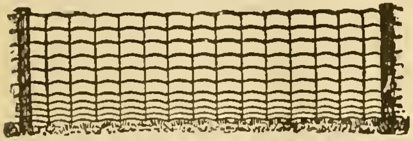

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Contributed Articles

Laying Queens Fighting—An Experience.

BY J. A. GOLDEN.

I saw Dr. Miller's question ("Whoever saw laying queens fight? I never did"), and was going to write what little experience I had observed along that line, but let it slip by, and after reading Mr. Bankston's remarks, which I thought at the time were very much uncalled for in the way he exprest himself, and sure enough Dr. Miller is quite justified in writing his open letter on page 466. A moral lesson should be learned from it, for it is getting to be a very common thing for some one to up and confound some one's experience as

J. A. Golden.

falsity in apiculture, just because they had not realized the same results; then to give vent to his over-charged caliber, and say, "These are immaginary notions; there's nothing in it," and so on.

There is much to learn in apiculture—about bees, queens, and the production of honey, and I apprehend that there is no one so wise in the long catalog of bee-keepers but may learn something about bees, and that's the grand mission of our journals on bee-culture—to distribute this knowledge.

My answer to Dr. Miller's question as I had discovered, is as follows: I think it was in 1894, I had reared from an imported Italian queen one of the blackest queens I ever saw, and called her "Black Bess," and took much delight in showing her and her yellow progeny. I often said I would give a nickel if anybody would show me a two-band bee in the colony. Having, as I thought, a queenless colony, I took "Black Bess" and introduced her to that colony, and reared one from her colony from which she was taken, and after her bees began to fly I noticed about as many hybrids in the play as the yellow, and I began to study the cause. I at once made an examination, and on the first frame examined "Black Bess" was busy laying. Not satisfied, and looking on the third frame there my curiosity was satisfied—a fine, large, mismated queen was also depositing eggs. Thus they continued until I requeened another colony with "Black Bess."

The same year I bought a queen, and when introducing I usually take one out and put the other in by the candy plan. Having the two cages lying handy, I caught the queen and accidentally, or carelessly, pickt up the cage, took out the end plug, and let the queen run in, putting in the plug, and turned the cage wire side up, and found I had put the queen in the wrong cage, and in a jiffy my dollar queen was cut nearly in two, and if any one doubts this statement, I am ready to affirm it.

The honey-flow throughout this locality is fairly good. I expect to report the result of my hiving-back method at the close of the season. Morgan Co., Ohio.

Sweet Clover Defended—Its Varied Values.

BY MRS. L. E. R. LAMBRIGGER.

I shall preface my remarks with a statement that may be taken unkindly by some, but let us keep good-natured, at all hazards. I think all will agree with me that it is to the interest of each and every bee-keeper that they learn all that it is possible to learn concerning every one of our honey-plants. To succeed in any calling we must have knowledge and apply it intelligently.

Bee-keepers as a class are lame in botany—awfully lame; this ought not to be, it *need* not be. Sweet clover has been dubbed a "noxious weed" by local law-makers who know less about the plant than our cattle, since the latter know it is good to eat. Bee-keepers resent this charge, they declare it is not in any sense a "noxious weed," but aside from the fact of its being a money crop to them, they have so far not been forthcoming with proof of their assertions. How many, I wonder, have consulted their dictionaries and *know* what all the word "noxious" embraces? The latest authority gives the following definitions:

> "Hurtful, harmful, baneful, injurious, unwholesome, pernicious, mischievous, causing or liable to cause hurt, harm or injury."

Now, then, what is a *weed?* "A general name for any useless or troublesome plant; a term applied indefinitely and generally to any plant or botanical species growing where it is not wanted, and either of no use to man, or absolutely injurious to crops."

Does sweet clover belong to the class above described? Let us see.

My encyclopedia gives the names of all chief weeds found in grain crops, and winds up with the thistles and docks, but as it happens (?) sweet clover is not found in the list. We will now consult Henderson's "Hand-Book of Plants"—a grand work by a grand author. On page 249, I find the following under the head of Melilotus:

> "This genus consists of about 20 species, mostly belonging to southern and central Europe and western Asia. Some of the species are grown in their native countries as forage plants. *M. officinalis*, with yellow flowers, and *M. alba*, with white flowers, are common on the roadsides in the United States, having become naturalized from Europe, and are sometimes cultivated as 'bee-plants.'"

The foregoing was written many years ago, and may be considered "behind the times." So, with your permission, reader, we will have recourse to something later and strictly up to date. On page 3087, Vol. III, of The New Encyclopedic Dictionary, I quote:

> "Melilotus, so called from the quantity of honey which it contains. It is found in the warmer parts of the Old World. Known species ten, two are wild in Britain—*Mel. officinalis* and *Mel. alba.* A third, *M. arvensis*, is an escape. A decoction of the *first* is emollient, and sometimes used on the continent in lotions and enemas. The *second* produces swelling in the belly of cattle which graze upon it. The flowers of *M. cœrulea* are used to give the peculiar odor and flavor to Schabzieger cheese made in Switzerland, and more particularly in Glarus; the plant is said to be a styptic. The seeds of *M. parviflora* are regarded as useful in diarrhea, most especially of infants: the plants are esteemed in India as forming good pasture for milch cattle."

Now, then, an emollient is applied to soothe inflamed parts and relieve pain; a lotion, to bathe and cleanse; an enema is simply an injection. The word "officinalis," as used in Pharmacy, means "of or belonging to a plant employed in preparing medicines recognized by the Pharmacopœia, and therefore kept by druggists for the use of physicians."

The foregoing ably bears me out in the statement made publicly several times that sweet clover had great medicinal virtues, tho it is the *yellow* that carries off the honors. Let me cite one proof of this in my own experience, before I pass to the next point in hand. One of my children fell against a box heating-stove, producing a serious burn larger than my hand; the skin was left on the stove, and the print of the iron was left on the sore. My first application to relieve pain was the white of an egg beaten up in fresh lard; after that, three times a day a dressing of sweet clover ointment of my own preparation. A handful of yellow sweet clover leaves *fried* in about half a teacupful of fresh lard or hen's oil. This was all the remedy I used, and in eight days I removed the bandages for good; a new, smooth skin had formed, and two months afterward not even a trace of a scar remained.

Shall such a plant be destroyed on the ground of its being pernicious, baneful unwholesome, *and of no use to man?* Its value for honey goes unquestioned; its value for hay and fodder has been fully establisht; and its recognized value as a medicine is but a question of time.

As to its being a weed when *out of place*, what then? So is alfalfa, so is the mullein, the tobacco-plant and the deadly nightshade, yet all have their uses in the economy of man; even the much-despised thistle furnishes a dainty tid-bit for the humble donkey.

All this hue and cry about sweet clover will exhaust the promoters in time, and dwindle down to nothing; it will be only another instance of "Lo! the mountain has labored and a mouse is born."

The yellow sweet clover is better for honey, better for hay, better for pasture, yields more seed, and is better for medicine than the white, tho both are good, and I challenge any man or woman to prove the contrary. It never troubles any fields that are cultivated, and is the the very easist plant I know of to destroy and stamp out of existence.

If wanted for hay, cut sweet clover when first coming into bloom; a second cutting can be made, and still have fine fall pasturage. Every animal we have eats it with a relish, from the horse to the laying hen. Can any other clover boast a better showing?

P. S.—*M. arvensis* is the *field* melilot, and *M. parviflora* (more correctly *parvifolia*) is the *small leaved* melilot.

L. E. R. L.

⁂

A Few Notes from California.

BY PROF. A. J. COOK.

SAGE VS. WHITE CLOVER.—I used to think that the white clover honey was the very *magnum bonum* of delicious sweetness; but I have just been sampling some sage honey, in immaculate one-pound combs, from Mr. Taylor's apiary, near Perris, which seems to me to be a little the most exquisite in flavor and appearance of any I have ever eaten. Mr. Taylor was formerly a successful Michigan bee-keeper, who is now one of our best honey-producers in California. I have askt several to test this honey, and all with one accord have pronounced it the best honey they have ever eaten.

THE SEASONS IN CALIFORNIA.—The honey season the present year has not been on the whole quite equal to that of two years ago. Mr. Taylor, of Riverside county, says his crop falls quite decidedly below, in quantity, while in quality it is unsurpast. The bee-keepers of Ventura county, on the whole, have done as well as they did two years ago. One bee-keeper started with 425 colonies, which were increast to 515, and secured over 24 tons of extracted honey. Another started with 800 colonies, and secured over 50 tons of honey. One apiarist with 150 colonies secured seven tons, and still another with 160 colonies extracted over nine tons. This gives about the general range in Ventura, Santa Barbara, and northern Los Angeles counties.

The Bee-Keepers' Exchange has made a good start. A goodly number of bee-keepers, including some of the very best, have joined its membership. It is to be regretted that more—yea, all—do not join its ranks. While all, as is also true with the Citrus Fruit Exchange, believe it a good thing, and a move in the right direction, yet many, hoping to receive the benefit, and to do better on the outside, refuse to become members. This seems a selfish policy, and we are sure it is a mistaken one. The Exchange has demonstrated this season that it can save its members a large per cent. in their purchases. We hope it will be equally happy in proving its value in making sales. We understand that the Exchange has arranged to advance money on honey as soon as it is in the warehouse. If this be so, it removes one of the most reasonable objections heretofore made to the organization—the poor people must have money on their crop before it is marketed, or possibly before it is all produced. We believe that all our agricultural industries will fail of their best accomplishment until full and complete co-operation is accomplisht.

Los Angeles Co., Calif., Aug. 4.

⁂

Influence of Pollen upon Size, Form, Color and Flavor of Fruits.

BY PROF. J. C. WHITTEN.

(*Read before the Missouri State Horticultural Society.*)

[Continued from page 502.]

In his extensive work, "Cross and Self Fertilization in the Vegetable Kingdom," Darwin conclusively proves the value of cross-fertilization in plants. Giving years of patient, untiring labor to the work, he carried on a series of experiments in both self and cross fertilization, in morning-glories, petunias and other plants, for a number of generations. He found, that, where continued self-fertilization was practiced, the plants diminisht in size, vigor, and productiveness, with each generation, and that a single cross of these seedlings, with another strain, greatly improved them. He also cross-fertilized a great many flowers, saving the seeds and again crossing the seedlings grown from them. These experiments were carried through many generations, with different kinds of plants. He found that cross-fertilized flowers produced much larger, heavier and more vigorous seeds, and that the seedlings grown from them were correspondingly stronger and more fruitful. The most important conclusion, resulting from Darwin's extensive studies along this line, during which he carefully compared his own observations with those of other investigators, is exprest in one of his own sentences—"Nature thus tells us, in the most emphatic manner, that she abhors perpetual self-fertilization," which is found in his work on "Various Contrivances by which British and Foreign Orchids are Fertilized by Insects."

Experiments are ample to prove to us, that cross-fertilization between plants of the same species is beneficial. Through laws of adaption and selection, the stronger, cross-fertilized plants would naturally enough crowd out and supplant the weaker self-fertilized ones. It is not surprising, then, to find that most of our flowering plants are actually constructed to bring about this result, nature having so modified their flowers as to render self-fertilization the exception rather than the rule. In many flowers the pollen and the pistils are not ready for fertilization at the same time, hence such flowers are dependent upon pollen from an earlier or a later flower. Frequently the pistil is longer than the stamens and reaches above them, out of reach of their pollen. In other cases the stamens and pistils are borne on separate plants as is the case in some of our cultivated strawberries. In such cases cross-fertilization must always be the result. Sometimes the pollen of a certain plant is entirely impotent upon the pistils of that plant. Many of our wild plums are of this class. Frequent instances are cited where plum trees, producing an abundance of pollen, failed to set fruit until a tree of another variety was set among them, when they produced abundantly through the perfect potency of the new supply of pollen.

Certain plants are dependent upon one or more species of insects for the fertilization of its flowers. Our native yuccas being dependent upon a single species of moth, to perform this function, is a most remarkable example. A complete account of the life history of this insect, and its remarkable habits in securing the fertilization of the yuccas may be found in the reports of the Missouri Botanical Garden.

For a long time it has been well known that the fig is dependent upon a certain fly for its perfect fertilization and that, when the pollen is carried from flower to flower, by the insect, the fruit is much larger and of more delicious flavor, than when the flowers are fertilized through any other agency.

The Department of Agriculture has publisht a most interesting and instructive bulletin upon the pollination of pear flowers. After ample, careful, experiments in cross and self-fertilization of different varieties of pears, the following among other conclusions were reacht:

"Many of the common varieties of pears require cross-pollination, being partially or wholly incapable of setting fruit when limited to their own pollen. Some varieties are capable of self-fertilization.

"Cross-pollination is not accomplisht by applying pollen from another tree of the same grafted variety, but is secured by using pollen from a tree of a distinct horticultural variety.

"The impotency of the pollen is not due to any deficiency of its own, but to a lack of affinity between the pollen and the ovules of the same variety.

"The pollen of two varieties may be absolutely self-sterile, and at the same time perfectly cross-fertile.

"Pears produced by self-fertilization are very uniform in shape. They differ from crosses not only in size and shape, but also, in some cases, in the time of maturity and flavor.

"Self-fecundated pears are deficient in seeds; crosses are well supplied with sound seeds. Even with those varieties which are capable of self-fecundation the pollen of another variety is prepotent.

"The normal, typical fruits and finest specimens, either of self-fertile or self-sterile sorts, are crosses."

Cultivators of strawberries express a preference for certain varieties of pollinators of the various pistillate sorts. This preference is founded upon the fact that the pollen of some staminate varieties is prepotent, as compared with that of certain other varieties which flower at the same time. It is a commonly noted fact that most pistillate varieties produce finer fruit than the staminate sorts. One reason given for this is that the pistillate sorts must always be cross-fertilized.

Since cross-fertilization, as thus far discust, refers, primarily, to the crossing of plants of the same species, it may not be amiss to mention briefly the subject of hybridization, or crossing of two different species. Without going into a lengthy discussion of this subject, it may be stated that, in the vegetable as well as the animal kingdom, there are very few undoubted hybrids. Experiments in the hybridization of plants has generally proven barren of beneficial results. Where hybrids have been secured that have often been monstrosities, being abnormally developt in certain characters and deficient in others. Where hybrids are not actually sterile, it has been shown to be difficult, in most cases, to fix a type in their offspring.

Finally we may conclude that where cross-fertilization between different varieties is favored, we may expect the most beneficial results. Insects are the active agents through which cross-pollination is best effected. Experiment may yet prove the comparative value of different varieties as pollenizers of other varieties. A judicious mixing of varieties is preferred to planting solid blocks of a single variety. Keeping honey-bees in the orchard insures better pollination.

Rearing Queens—Drone Progeny of Queens.

BY L. L. SKAGGS.

C. B. Bankston, on page 435, says that queens can't be reared from larvæ three days old. Now, we know that if bees are made queenless they very often hatch a queen in nine days. Mr. B., how is that? I would like some information on this. Will Mr. Bankston make me the same offer that he did his friend—to give $10 apiece for queens that were reared from larvæ three days old? And how much proof does he want? If there is any chance to sell these queens for a good figure, I will try my hand at rearing a lot of little worthless queens, as I know that such queens are no good.

I see Mr. Bankston claims that drones are changed by the mating of their mother. I was like him when I first commenced bee-keeping, but observation has taught me differently. I hated to give up nearly as badly as he did about killing the deer.

I have had a splendid chance to test this. I have moved my bees three times. I keep the 5-banded Italians. A great many of my neighbors' queens mate with my drones. I have never seen a single yellow drone in their hives. The first season they were all as black as tar. I think I have examined at least 50 different colonies, and askt my neighbors to watch for them, and no one has reported having seen a single yellow drone till the second season. If there is the least bit of Italian blood in the queen, you will find yellow drones, or, if black bees and Italians are in the same yard, you will see yellow drones in every hive. Drones go into the first hive they come to. They are at home anywhere. Bees must be over one-half mile, or the drones will get in with the swarms when they come out, and stay with them. If Mr. B. had been here last spring, when I was trapping my neighbors' drones, I could have proved it to his satisfaction, that he is wrong.

Mr. Bankston has left such a good opening that I felt I must joke him a little. Is he sure that he didn't get his bee-notions in the same way he got the deer yarn that he could hardly give up?

Llano Co., Tex.

Our Chinese Bee-Keeping Friend Again Heard From.

MLISTER LEDITOR:—It is a long tlime slince I lote you last—I gless you must have florgotten me 'tis slo long aglo. Plaps some ylour leaders may remember that I lote you slome letters about tlee ylears aglo.

At that tlime I klept blees—sugar-flies—nlear Slan Flancisco. As I made heap monee flom my sugar-fly hloney, I thought I would glo to my old hlome in China to see my wifo, my chlinden, and clusens. I went first-class—all samee, Melican man. Ladies in clabin treat me heepee nice. Belly sweet on me—thley mlust have known that I was englaged in sugar-fly blisness in Claliflornia—Claliflornia heep sweet place, you know.

On shlip I meet some of Mr. A. I. Loot's fiends; they glo China to make clistian of heethen Chinee, they say. I hope they slucceed. One lady heep nice—she all slame sluggar-fly honey—she so slweet. If I had no wifo in China, I think I ask her to beclome my wifo.

In China my flamly belly glad to see me. My chlinden grow heep big and belly smlart—almost slame Melican bloys and glirls. I find that my big bloy learn slome Linglish, and lead Loot's "Gleanings in Slugar-Fly Clulture." She get tea-box and make hive of him. She call him "Slymplicity hive." I look him obler belly muchee, and thinkee him the neeplus ulthra (I learn some Latlin lately, you see) of slymplicity. She glet belly nice suglar [honey], and sell him here for one sen plound—heep too cheap. But wha' flor? I tly to glet mlore, but no can do. War with Japan clome on.

Pletty sloon, blime bye, Hon. Li Hung Chang, my 32nd clusin, send sloldger alfer me to clome and flight Japan man.

Residence of Wung Lung, North Temescal, Calif.

You see I no glo, I lose mly head—heep bad, you bet. So I glo.

I flighter heepee muchee, and make heepe Japanee debil bitetee dirt. You see when I laised legetables in Temescal, nlear Slan Flanciselo, I learned how to shootee glopher and squirrlee.

Slo, when the blattle Port Arthuree come on, me made Captain one of the clompanies. I now wear fline clothes. Japan debil make target of me—shootee at me heep muchee. Slixteen blulitts go thloo me—heep lightee enter my body. Me hap die. For long tlime lay on flield. My wifo follow me to war, flind me hap die, give me plenty lice gin [whiskey], aud me clome to life once more. Wifo tlake me lospital; heep nursee me, and one ylear me pletty muchee well aglin.

For slix molnths I lookee lafter my slon's sugar-flies—get slome belly nice sugar [honey], and slell for two sen plound—war make sugar go up 100 per slent. When I get heep well—which tlook tloor [2] ylear—I go black to Slan Flanciselo. I heep slorry I have to leave wifo, China—can no let me tlake him to Melica.

I flind my Melican sugar-flies heep fline. They fly heep muchee, and make heep sugar. My old plartner look after him slatlflactorly—big word for Chinaman to slay. I now got 15 slwarms. Me sloon buy lax lextractor, wax blase machineen, and heep other flixings. This ylear we have tip-tlop apliary—all samee Dloolittle and Dloctor Pliller.

Pletty sloon, not long aglo we glo on tlip among sugar-fly man in Clalilfornia—me learn heep muchee about sugar-fly. (I forgot to slay me learnee how to ridee blyclkee. Me go on him mlost lebley where.) I see Lambler, Flylark, Mr. Mylder, Dr. Trotter, Mr. Blodlick, Plofessor Kitchen, Mr. Oldman, Mr. Plyawl, Mr. Slevering, and heep other sugar man.

Next tlime I lite me tell you ablout slome of my tlip. If you like to lustrate my letters I will slend you slome potografs of places I slopt while tlavling. You see I also added a snapshot plicture machinee to my outfit, all slamee Mr. Loot and Lambler.

Glood bly for the plesent. WUNG LUNG.

Slan Flancisclo, Jan 1, 1897.

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Factors Influencing the Cause of Swarming.

BY L. A. ASPINWALL.

Forty-five years ago M. Quinby, in his first edition of "Mysteries of Bee-Keeping Explained," assigned three requisites as constituting the cause of swarming, I quote from page 189:

"The combs must be crowded with bees; they must contain a numerous brood advancing from the egg to maturity; the bees must be obtaining honey, either being fed or from the flowers. Being crowded with bees in a scarce time of honey is insufficient to bring out the swarm, neither is an abundance sufficient without the bees and brood. The period that all these requisites happen together, and remain long enough, will vary with different colonies, and many times do not happen at all through the season, with some."

I cannot refrain here from giving expression to the wonderful accuracy of Mr. Quinby's investigations. In discovering the three requisites he was unaided by the movable-comb hive. With the advantages of movable combs, other minor factors present themselves to the investigating mind.

By careful and comparative investigation with a number of swarming colonies, we find certain factors, altho trivial in themselves, entering into, and constituting a force bending to a common end—swarming.

Altho it is generally conceded that the three factors given by Quinby, are the requisites which induce swarming, I shall name one as the prime cause, with factors which I shall hereinafter refer to, acting in conjunction, constituting a force to hasten or retard the impulse, proportionally as they are present.

I will here state for the benefit of those concerned, that all my experiments the last five or six years have been based upon the foregoing fact.

The first or prime cause of swarming is, *bees*. As Mr. Quinby gave it, a crowded condition. All the other factors may be present, but without a crowded condition, no swarms will be forthcoming. Of all the adjunct requisites, a honey-yield is the strongest factor, and with the natural increase of maturing bees, which tends to a crowded condition, a large brood is usually present. Still, with a crowded condition, altho the flowers may yield no nectar, swarms will occasionally issue, which is evidence that an abundance of bees constitutes the strongest or prime factor. A crowded condition renders their abode somewhat untenantable, and it also interferes with the duties of the queen.

It is a well known fact that temperature is an important factor in influencing the swarming impulse. A number of colonies located in a pent-up atmosphere, subjected to the burning rays of the sun, will swarm much sooner than a like number equally strong, but protected by shade.

Ventilation also governs largely in the matter; and its necessity becomes more apparent with hives exposed to the sun's rays than otherwise.

In a previous article under the head, "Drones as a factor in swarming," I alluded to my experiments with artificial comb, by which I proved them to be a factor in swarming; they being necessary in reproduction.

In numerous experiments I have also found that a removal of the combs containing pollen retarded swarming. This I have proved by comparison with an equal number of colonies from which the pollen was not removed.

As already alluded to, honey is undoubtedly the strongest factor influencing the crowded condition. With combs well supplied, a failure in the sources will not always prevent the issue of swarms. This is particularly true when colonies have been confined to the hives by unfavorable weather after a good honey-flow. We frequently see swarms issue a week or ten days following fruit-bloom, when they have been confined by cold or rainy weather. Having begun preparations under the influence of a honey-yield, an intensely crowded condition by reason of confinement, during which time a failure of the honey-yield is not realized by the colony, swarming is almost certain to occur when honey is plentiful in the hive.

With an aggregation of colonies under the control of man, we also find another factor which does not present itself where colonies are isolated as in a state of nature. I refer to the swarming impulse as being contagious. I have known it to manifest itself under certain circumstances and in certain seasons favoring the circumstances to an excessive degree. These circumstances include some of the factors already named, such as heat, want of ventilation, honey-yield, etc. This contagion spreads by reason of bees entering neighboring hives.

We find another factor in the inherent tendency, or sensitiveness of some colonies to the foregoing factors. The Carniolans are a notable example of a variety in which both bees and queens are extremely nervous, and susceptible to outside influence.

I have already intimated that the queen is impeded in her work of laying by reason of a crowded condition of the colony. It is barely possible that queen-cells are then constructed under circumstances similar to supersedure; the queen being unable to fulfill the requirements of the colony. I have frequently observed many empty portions of comb-cells under such circumstances. I have also noticed that swarming frequently takes place in case of supersedure, when the colonies are overflowing with bees. In such case the queen is liable to succumb the following winter. I had such an occurrence the past season.

As a summary we have as the prime cause of swarming—Bees, and some eight or nine factors: Temperature, ventilation, drones, pollen, honey, the influence of a honey-yield extending into a failure of the honey-sources, the swarming impulse, the inherent tendency, and, lastly, that under the circumstances of supersedure. With a crowded condition, one or more of these factors influence the issue of swarms proportionally as they are present.—Review.

CONVENTION PROCEEDINGS

Report of the Central Texas Convention.

BY C. B. BANKSTON.

At Cameron, Tex., July 16 and 17, 1897, the Central Texas Bee-Keepers' Association met, with Pres. E. R. Jones in the chair. After a brief address, stating the main objects of the organization, the Rev. A. J. Peeler offered prayer.

Judge J. M. McGregor then delivered an address of welcome, to which Judge E. Y. Terral responded with one of his characteristic speeches. There were 42 members in attendance.

The election of officers for the ensuing year resulted as follows: President, E. Y. Terral; Vice-President, O. P. Hyde; Secretary, C. B. Bankston.

BEST HYBRID BEES FOR HONEY.

"What hybrid bees are best for comb and extracted honey?"

Quite a number favored the blacks, and Italians crost for comb honey production; pure Italians for extracted honey; and a cross between Italians and the silver-gray Carniolans had some strong advocates.

C. B. Bankston read a paper on some of the mistakes in bee-keeping, touching principally upon the same points that appeared in his article recently publisht in the American Bee Journal.

COMB FOUNDATION.

The subject of comb foundation was pretty thoroughly discust.

O. P. Hyde said that he had experimented with the Weed drawn foundation, and could safely say that there were some very objectionable points about it. 1st, The bees do not accept it as readily as the shallow-wall foundation. 2nd, The bees are inclined to cut the cells down. 3rd, Its use caused fish-bone in the comb honey. 4th, It costs too much. Quite a number said that the samples on exhibition were a master-piece of workmanship, and believed that the Roots would make it a success.

HONEY-DEW.

C. B. Bankston—If I did not know what honey-dew is, it would be necessary for me to compile some high-sounding phrases, which you could not, to save your life, comprehend. But as I happen to know what it is, and as the truth is always simple, I will just say that it is no more nor less than an exudation of a bug or insect, or both, as it is discovered on just a few varieties of plants. I presume that the bug sucks the sap from this particular plant, then at night, or at some time, discharges this sweet stuff on the leaves. Some of my friends try to prove that it falls from the heavens, as the rain or dew. I think it is absurd. I would about as soon say that the good Lord was running a sorghum-mill for the special benefit of the adulterators of food-products, as it is exceedingly unfair.

Mr. Hodges—I do not hesitate to say that honey-dew falls from the heavens.

J. C. York—I never investigated the matter, but my impression is that it falls from the heavens. I do not believe I ever saw it on corn stalks, as some claim to have seen.

Judge Terral—I believe it is exuded from different kinds of insects.

John Cairns—I am satisfied that it is a production of the bugs.

E. R. Jones—I believe that it exudes from plants, which become somewhat overloaded with saccharine matter, and then through the pores of the plant this substance issues.

Fred L. Hennington—I think it must fall from the heavens, otherwise I cannot understand the source from which it comes.

John Pharr—If it falls from the heavens, why does it not fall on rough leaves as well as slick ones?

Mr. Gruess—I think it is refuse matter cast off by the plants. My bees gathered this honey from walnut trees, and it had a flavor very much like the leaves.

The By-Laws adopted by the association (with the exception of the ninth clause, which was stricken out by a majority vote) are as follows:

1.—This Association shall be known as the Central Texas Bee-Keepers' Association.

2.—The officers of this Association shall consist of President, Vice-President, Secretary and Treasurer. The Secretary may also be Treasurer.

3.—The object of this Association shall be the promotion of apiculture.

4.—This Association shall meet semi-annually, at such places and times within its territory as may be designated by a majority vote of the Association.

5.—The officers of this Association shall be elected annually by a majority vote of the members present.

6.—No member is eligible for election for the same office of this Association to succeed himself.

7.—Each member shall pay an annual fee of 50 cents to pay the expenses of the Association.

8.—All white persons interested in apiculture are eligible to membership in this Association.

10.—All members of this Association shall be governed by such rules and regulations as adopted from time to time by a majority vote.

11.—All questions coming before this Association shall be settled by a yea and nay vote.

12.—No rule or regulation of this Association shall be changed except by a two-thirds vote of the assembly.

13.—The President is empowered to appoint delegates at any time to represent this Association on all occasions when in his judgment it is to the best interest of this organization.

REPORTS FOR THE SEASON OF 1897.

Mr. Aten reported that the honey crop in his neighborhood was very good. He has about 500 colonies, all except a few run for extracted honey.

Mr. Gruess has about 150 colonies run for extracted honey; crop good.

Mr. Hyde has about 300 colonies run for comb and extracted honey; crop good. Mr. Noe, about 30 colonies; crop good. J. J. Baggett, 20 colonies; crop not very good. Judge Terral & Co., 400 colonies; crop very good. R. W. Coye, 20 colonies run for increase. John Pharr, 20 colonies run for increase; no surplus. J. C. York, about 15 colonies; crop very good. E. R. Jones, 30 colonies run for comb honey; good crop. Mrs. Hages, 60 colonies; good crop. Mr. De La Vergne, 15 colonies; good crop of comb honey. R. S. Booth extracted 28 gallons from 5 colonies; pretty good. E. Nabors, 30 colonies; good crop. W. R. Dennis, 14 colonies; comb honey crop good. John Hill, run for increase.

All the members seemed well pleased with their crops. They were better this season than they have been for several years. Some of the large bee-keepers have taken off 11 tons already, and expect more.

Judge Terral delivered a speech on ancient and modern bee-keeping, which lasted about one hour and a half, and was one of the best and most interesting speeches that was ever delivered on the subject. It will soon be printed in the bee-department of the Texas Broncho, and a copy sent to the American Bee Journal.

On Friday night there was an entertainment given by the bee-keepers at the home of Judge Terral. Everybody enjoyed the occasion very much.

The following resolutions were past unanimously:

WHEREAS, The Hon. E. Y. Terral, his good wife and accomplisht daughter, Miss Lee Terral, and kind son, Mr. Sam Terral, have most hospitably entertained the entire membership of the Central Texas Bee-Keepers' Association at their home; and,

WHEREAS, Each and every member of this Association feels individually under obligations to the family of the Judge; therefore, be it

Resolved, That we, the Central Texas Bee-Keepers' Association, by a rising vote, extend to them our heartfelt gratitude for their kindness.

The convention adjourned to meet in Cameron the first Thursday and Friday in February, 1898. There will be an entertainment given by the editor of the Sand Grove Tattler, on Thursday night. C. B. BANKSTON, *Sec.*

The Horse—How to Break and Handle.—This is a pamphlet of 32 pages, giving complete instructions for breaking and educating colts, teaching horses to drive, and for use under the saddle, together with many instructions which have never before been publisht, and which are the result of the author's experience covering a period of 20 years. By Prof. Wm. Mullen, with whom the editor of the Bee Journal is personally acquainted. Price, postpaid, 20 cents; or given as a premium for sending us one new subscriber to the Bee Journal for the rest of the year at 50 cents.

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A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

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Now is the Time to work for new subscribers. Why not take advantage of the offers made on page 513?

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Transferring Bees.

1. I have a colony of bees in a tall box-hive, and wish to transfer to a regular dovetailed hive. Can it be done now? If so, how shall I proceed? The hive I will use has two full sheets and six half sheets of brood foundation. I might possibly take a frame or two of honey from a new swarm if obliged to. I'd rather feed if necessary.

2. This colony sent out a swarm (its first and only one) July 3. If any bees are left in the hive, will they be apt to start any queen-cells? or is it too late in the season?

NEW YORK, July 26.

ANSWERS.—1. The best time to transfer your colony was already past when your letter was written, that is 21 days after the colony had swarmed. Your best plan is to leave the colony where it is till fruit-bloom next year, and many are coming to the opinion that you will do still better to wait till the bees swarm, hive the swarm in the hive you desire, and then 21 days later, when all worker-brood has hatcht, empty the old hive.

2. Queen-cells, as a rule, are started before a swarm issues, and are sealed at the time of swarming. So by the middle of July there was probably a young queen laying in the hive from which the swarm issued July 5. Of course there is always some chance of failure and consequent queenlessness.

Several Questions About Bees.

I am very thankful for the information I received through the American Bee Journal in regard to queen-rearing. I got more information from one copy of it than I got from two books that cost $1.25 each. I don't see how any one can do without the American Bee Journal and be successful with bees. I dislike to impose upon good nature, but I would like to ask a few more questions.

1. I made my own hives, and the frames are 11⅛x11⅛ inches, which makes them near the size of the Langstroth frame, except it is deep and short. My hive is 12⅛x12⅛x12⅛. If I make the second story larger, so as to get as many one-pound sections in them as the regular size hive, will the bees work as well in them?

2. If a colony becomes queenless at this time of the year, and the bees rear a queen, will she be mated?

3. Will it cause bees to rob if fed on honey at night?

4. Is cheap molasses a good food for bees in summer?

5. Will bees rob when honey is flowing?

6. Will bees rob in the night, or any more in the day, by being jammed together?

7. I bought one untested queen from a Florida dealer. She is a bright Italian, and the young bees are large, sleek, black bees, but not like the regular black bee. What is she crost with?

VIRGINIA, July 26.

ANSWERS.—1. They will work in your sections all right, altho perhaps not so well as over the common size, for you have a smaller surface for sections to be placed over. Your hive being smaller, you can hardly have as strong colonies, and strong colonies are the ones that do the best work in sections.

2. There is no trouble about drones being plenty enough any time up to heavy frosts.

3. Not if there is no feed exposed the next morning after the bees are flying.

4. Almost anything they will take will do to give them when bees are flying every day, but better not give them enough to have it stored in the combs, just enough so it will be all used up in brood-rearing.

5. Generally not, altho you may start robbing even in a honey-flow, if you allow brood-combs standing around unprotected.

6. By being "jammed together" you probably mean having the hives placed very close. There is little danger from this source, even if the hives should be touching. But it isn't a good plan to have more than two hives at a time jammed together. You may have a dozen hives in a straight row, the first and second close together, then after a space of perhaps four feet, the third and fourth close together, and so on; but if the whole 12 are placed close together instead of being in pairs, there is likely to be a good mixing of bees, and some danger that young queens will enter the wrong hives on returning from their bridal trip.

7. Hard to say. Very likely with the common black bee.

Don't be worried about sending questions. Glad to get them. That's what this department is for.

One of the Mints.

I enclose blossoms of two plants, also sections of the same. No matter what other flowers are in bloom at the same time, these plants are covered with bees from morning to night. It is not uncommon to see 12 to 15 bees on a single stool of one-half dozen stems. Please give what information you can as to their worth as a honey-plant. They are not common here. I have seen them only in one small locality.

MISSOURI.

ANSWER.—It is one of the mints, but I don't know enough about honey-plants to say which. The mints are much valued as honey-plants.

Putting Pollen in the Sections.

I experienced considerable trouble and loss this year on account of my bees putting pollen in the sections, and I would like to know if there is any way I can overcome this annoyance in the future. In many cases the cells were filled out with honey and capt over, and it could only be detected by holding the section to the light. It was a colony of Carniolan bees which contained the sections referred to. How can I remove the pollen? or will the bees themselves attend to it if I break the cappings and stir it up?

If that is a feature of the Carniolans, do not bother with any details, as this is my last year with such stock.

PENNSYLVANIA.

ANSWER.—I'm sorry to say I don't know enough to help you out very fully. Sometimes bees put pollen in sections with no apparent reason, at least none that I could see. The comfort is that it is not a common occurrence, and whatever the cause may be, it is not likely to occur next year. I doubt whether the Carniolan blood has anything particular to do with it. There is no satisfactory way to get the pollen out of the sections. If it is in such quantity as to make it unfit for eating, as is probably the case with you, there is not much for you beyond the poor consolation of knowing that those sections will make excellent food for your bees. If you uncap them and leave them on the hive long enough, at a time when bees are not storing, you may find the bees gradually working out the pollen, and you would have the empty combs left to be filled another year, but they might not by that time be very desirable for section honey.

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

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Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

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EUGENE SECOR, Forest City, Iowa.

Next Annual Meeting at Buffalo, N. Y., Aug. 24–26, 1897.

Vol. XXXVII. CHICAGO, ILL., AUG. 19, 1897. No. 33.

Editorial Comments.

On to Buffalo!—That's the cry now. If it isn't the biggest and best bee-convention ever held on this continent, it won't be the Executive Committee's fault, that's certain. But we just expect that at least our Eastern bee-keepers will simply "swarm" to Buffalo, and that the Main Hall of Caton's Business College, corner of Main and Huron streets, will be a veritable *hive* of bee-keepers. A good representation ought to be present from the West, especially when such low railroad rates will be in force.

Better take next week off, and go to the convention, and see the wonderful Niagara Falls, besides. It is also the chance of a lifetime to get in touch with those big Eastern bee-keepers. We certainly expect to see and hear Doolittle, Elwood, Manum, Capt. Hetherington, and many other notable and "wise (bee)-men of the East." Only $10.50 for the round-trip from Chicago. It's worth half that to just see Doolittle—'cause he's a big man no matter in what way you look at him. We've seen him, and so speak from experience.

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"Put Me Off at Buffalo" will likely be the refrain sung out most next week. We hope at least 500 of the "refrainers" will be bee-keepers who will also attend the convention. We expect to see many of the G. A. R. men who are bee-keepers. It will be such a fine chance for them to attend both meetings—dividing their time between them. It might help some if each would get a copy of the program, and see just at what sessions of the bee-convention they prefer to be present. Send 5 cents to the Secretary, Dr. A. B. Mason, Sta. B, Toledo, Ohio, and he will mail you a copy. Remember that six bee-songs also go with it. If you possibly can do so, just add 95 cents more to your remittance, and become a member of the United States Bee-Keepers' Union. Dr. Mason will then mail you a membership receipt as well as a copy of the Buffalo program.

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The Buffalo Convention Program is an unusually meaty one. As there will be many who cannot go, and who have not as yet sent their 5 cents for a copy, and yet will desire to know what subjects will be talkt about, we give here the principal part of the program as publisht:

"Experimental Work at the Ontario Experiment Station"—R. F. Holtermann, of Canada.
Secretary's Report—Dr. A. B. Mason, of Ohio.
"Apiarian Exhibits at Fairs"—Hon. E. Whitcomb, of Nebraska.
"Suggestions on the Making of Exhibits at Fairs"—W. Z. Hutchinson, of Michigan.
"Relation of Bees to Horticulture"—Hon. R. L. Taylor, of Michigan.
"Bee-Culture for Women"—Mrs. L. Harrison, of Illinois.
President's Annual Address—George W. York, of Illinois.
"Improved Methods in Extracted-Honey Production"—R. C. Aikin, of Colorado.
"Successful Bee-Keeping"—G. M. Doolittle, of New York.
"Needs of Bee-Culture in the South"—Dr. J. P. H. Brown, of Georgia.
Report of the General Manager and Treasurer—Hon. Eugene Secor, of Iowa.
"Co-operation Among Bee-Keepers"—Geo. W. Brodbeck, of California.
"The Progress of Bee-Keeping in Canada"—M. B. Holmes, of Canada.
"Profitable Feeding of Bees, or Feeding for Profit"—A. E. Manum, of Vermont.
"Marketing Honey"—P. H. Elwood, of New York.
"Shipping Comb Honey"—E. Kretchmer, of Iowa.

It will easily be seen that for any one to miss the above rich program will be a great misfortune. Better be there if you can possibly arrange it.

Of course discussions will follow the reading of the papers, and it is intended to devote some time of each session to the question-box.

◆

Lodging During the Convention.—As there will be several visitors in Buffalo besides the bee-keepers, it will require a lot of room to furnish sleeping accommodations. But we find if we can fill the special sleeping-car with bee-keepers, we can use that same car during the three nights we will be in Buffalo at a cost of only about 75 cents for each person per night. Of course there will be no trouble to get something to eat; and with a good place to sleep assured, why, all who go in that carload will have no reason to complain.

Now, we hope that 25 or 30 bee-keepers around and west of Chicago will write us *at once*, or telegraph, so that we can secure this sleeping-car, and make all arrangements. We *must* do this on Friday afternoon (Aug. 20) without fail, if the special car is to be taken by the bee-keepers. Surely, we ought to have at least 40 bee-keepers to pass through or start from Chicago, when the round-trip is only $10.50! Let's surprise the East with a big attendance from the West. It will do all of us good to get better acquainted.

◆

Canadians Will Be There!—A letter received from Secretary Mason, reads as follows:

STA. B, TOLEDO, Ohio, Aug. 12, 1897.

FRIEND YORK:—A few days since I received a letter from a Canadian friend, saying:

"I am pleased to see that you are making every effort to have a grand convention at Buffalo, N. Y. From what I can judge, you will succeed. I have every reason to believe that there will be a good attendance of Canadians as well........ I may give you a hint: I expect to see as many Canadians as

> United States bee-keepers at the convention, and if there are, we may vote it a Canadian instead of a United States organization. Ha! Ha!"
>
> I sent the above to such bee-journals as I thought I could reach in time for this month's issue, and askt them to sound the note of warning to the Yankees. We've whipt Johnny Bull twice, and it would be a shame to let some of his offspring come and whip us on our own soil.
>
> Perhaps I'm a little more sensitive about this than any other of your readers, for at the battle of Buffalo, in the war of 1812–13, one of my grandfathers was killed (tomahawkt by an Indian ally of the British). So please get all the Yankees to be at the convention that you can, and help me to be avenged on our foes (?). Don't let any one show the "white feather," for I believe we can rout the whole "caboodle" of them without shedding a drop of blood! At any rate, *I'm* ready for the "fray," and am going to take Mrs. M. along to help, and you know what the result always is when the ladies have a hand in matters. A. B. Mason.

Whoop-ee! Think of it—"as many Canadians as United States bee-keepers" at Buffalo! Good. Come on, you Canucks. You'll have to get there lively to equal the New Union Yankee boys. And every one of you paying his membership dues and wearing a "U. S." badge, can vote and shoot—off your mouth—in convention. So far as we are concerned, if in the "battle of the ballots" you win, you can call it a "Canadian organization," or anything you please. It will be good enough for the stay-at-home Yankees. But you hadn't better "count your chickens before they're hatcht." Your Yankee Brother Jonathan has a way of "getting there" that is quite surprising, as your ancestors learned to their sorrow on at least two occasions, one of which Dr. Mason seems to have occasion to remember.

Arouse, ye U. S. bee-keepers! and "on to Buffalo!" Your fair honey-land may be in danger of being over-run with the festive Canucks across the border-line. Arouse! Get there!! Buffalo!!!

Good Advice on Marketing.—Mr. J. W. Rouse—one of Missouri's best bee-keepers—gives this paragraph in the Progressive Bee-Keeper for August:

> While there will be a good honey crop this season, I would advise honey-producers not to demoralize the market by rushing their honey to market too early; and also be careful about shipping honey to parties not known. In fact, I have always managed to find sale for my crop of honey around home. I would rather give my neighbors the benefit of low prices than to ship my honey, and be compelled then to take a low price. Of course, more honey may be secured in some localities than one can find a demand for, but there are very many people who seldom, if ever, get any honey to eat. So with push, one may dispose of a good crop. A good article is very likely to find customers, for it is delicious, and people want it.

"Much Ado About Nothing."—We were reminded of this quotation, upon receiving the following from Secretary Mason:

> Sta. B, Toledo, Ohio, Aug. 13, 1897.
>
> Mr. Editor:—I have just received a letter from a friend (I say friend because he tries to have me do *right*) in New York or New Jersey—can't tell which—saying:
>
> "You tell every bee-keeper who expects to attend the Buffalo convention, to *lie* right out and out to the ticket agent in order to save a few dollars. You ask him to use deception, fraud, hypocrisy. You tell them in plain words that they should buy round-trip tickets to the G. A. R. Encampment, not to the bee-keepers' convention; shame on you. When, oh when, will men cease to advocate fraud? You know full well that the bee-keepers are *not* going to Buffalo to attend the G. A. R. Encampment......Yet you ask them to throw away their manhood just for a trifle; it sounds bad, Dr........No doubt you are fighting the adulteration of honey, and want honey put up honest, and sold for just what it is, and yet you ask the very men who produce this honey to defraud the railroad company by telling a falsehood. Suppose the agent at your station asks you if you are not going to the bee-convention instead of the G. A. R. Encampment, what are you going to tell him? Let me tell you what to tell him—tell him the truth." Snyder.
>
> All right, Mr. Snyder; I'll take your advice and "tell him the truth," and I wish I could take back what wrong advice I gave (if I gave any), and will, as far as it is possible to do so; and say to all the bee-keepers, and others who might be influenced by my (wicked?) suggestion: Don't tell your station agent where you want to go, unless you want to, nor what you are going for. Just ask him for a ticket to Buffalo at the reduced rate, good for 30 days. Will that suit you any better, Mr. S.?
>
> I hadn't the slightest idea of defrauding any railroad. It is the custom, and they expect it. It didn't occur to me that there would be anything wrong in it.
>
> Since receiving the above-mentioned letter, I've been to our railroad station and askt the agent if he would sell me a ticket to Buffalo at the G. A. R. rates to attend the convention of the United States Bee-Keepers' Union, and explained to him why I askt. His reply was:
>
> "Certainly. We don't care where you are going, nor what you are going for. All we want to know is that you want a ticket for Buffalo at the reduced, or G. A. R., rate."
>
> Is that satisfactory? If not, any one who desires is at perfect liberty to pay full fare for a round-trip ticket, or do any other way his conscience may suggest, and I'll find no fault with him, for I want to see as many bee-keepers at the convention as can possibly be there.
>
> Sadly, but hopefully, yours for the right,
>
> A. B. Mason.

Right you are, Dr. Mason. The railroad ticket agents care nothing about what any one is going to Buffalo for. Each fellow just pays his fare on certain days at the reduced G. A. R. rate, and no questions askt. Of course, after the ticket is bought on account of the G. A. R. Encampment, the purchaser can throw it away and buy another at the full regular rate, if he "has money to burn;" or if he chooses he can put both tickets in his pocket and stay at home, if he is afraid he might in some way defraud the poor railroad company, if he should use either ticket!

A Special Car of Bee-Keepers.—Lately several of our friends have askt us when and by what route we expect to go to Buffalo, to attend the bee-keepers' convention. We had intended going a few days before the meeting, and stopping off to see our near and dear relatives in northeastern Ohio, but we have been compelled to change that intention, and now expect to leave Chicago on the Nickel Plate railroad at 3:05 p.m., Monday, Aug. 23, arriving at Buffalo at 8 o'clock the next morning, in time for the opening of the convention at 10 a.m., as per the printed program.

Since deciding as above, we have wondered if it were not possible for the bee-keepers around Chicago, and those from the West who will pass through here on their way to Buffalo, to make up a special car on the Nickel Plate, and go on together from here. We find that we can have a sleeping car for such purpose at $10.50 for the round trip per passenger, and the berth $1.50 extra, tickets with special return privilege of extension to Sept. 20. But there need to be at least 25 persons to go thus together in order to have the special car; however, 30 or 35 *can* comfortably get into the car. Of course, ladies will be welcome to go thus as well as the gentlemen. Bring your wives and daughters. It will be a grand trip.

But shall we all go in that special car? What do those bee-keepers who expect to go, say about it? We'd all have a fine trip together—from 3:05 p.m. Monday till 8 o'clock the next day.

Now, let all who will join in this, write us at least by Friday, Aug. 20, so that we can fully complete the arrangements. We will attend to getting your tickets and sleeping-car berths, if you will send us the necessary $12 to do it with, and have everything ready when you get here Monday. Come on, friends.

Ideal Location for Bees.—So many young bee-keepers ask as to the best location for an apiary, and this advice from the Editor of Gleanings, who has tried about every kind of a place for bees, will help the beginner, and perhaps the more experienced, in selecting the best or ideal place for putting the apiary:

> For myself, at least, I have decided that the ideal place for an apiary is in an orchard, where there are low-spreading trees. If the queens' wings are clipt, there will be comparatively little climbing after swarms. Some prefer shade-boards; but after having tried both, for the comfort of the apiarist and that of the bees, I decidedly prefer the shade of low-spreading trees. Grape-vines do tolerably well, but they do not protect the apiarist; and at this time of the year, when the shade is most needed, they are sending out shoots and branches that interfere with the handling of the hive; and grape-vines do require an excessive amount of trimming just at the time bees need the most attention. The colonies at our out-yard are placed in groups of three on the north side of the low-spreading basswoods. It is a great comfort as well as a pleasure to work among the bees compared to what it is in the home yard with the grape-vines. Vernon Burt has his apiary in an apple-orchard, and the grass is neatly kept down by sheep that are allowed to run among the hives at will. The lawn-mower does not compare with them.

The Weekly Budget.

Mr. E. R. Lee, of Crawford Ark., writing Aug. 1, said: "Bees are doing well in this 'neck of the woods.'"

Dr. E. Gallup, of Orange Co., Calif., reported Aug. 3: "This has been a phenomenally good honey season with me."

Dr. Miller, of McHenry Co., Ill., writing us Aug. 7, said: "Buckwheat is just coming into bloom, and clover is hardly done."

Dr. H. Besse, of Delaware Co., Ohio, expects to be at the Buffalo convention, we note by a letter just received. His sweet clover lawsuit is expected to come off about the middle of September.

Miss Mathilda Candler, of Grant Co., Wis., writing Aug. 4, said:

> "The bees have done pretty well so far. I have taken off some very nice honey."

Mr. Jas. A. Stone, of Sangamon Co., Ill., Secretary of the Illinois association, wrote us Aug. 6:

> "Bees are not storing any honey now, but I believe we will have a good flow this fall."

Dr. A. B. Mason's youngest son, we learn, was married recently. Shows how a father's example will be followed, sometimes. But we congratulate the young couple, and wish them long life and much happiness in their new "Mason-ic" home.

Mr. R. C. Conde, of Saratoga Co., N. Y., had this to say recently when sending three new subscriptions for the Bee Journal:

> "I could not get along very well without the American Bee Journal. There is something in every number that is worth what it costs for a year."

Mr. Walter S. Pouder, one of our Indiana advertisers, is thus referred to by Mr. J. T. Calvert in his "Notes by the Way," in a recent issue of Gleanings:

> "Walter S. Pouder, of Indianapolis, has been developing the trade in honey and beeswax till he has built up a very nice trade. He sells all the beeswax he receives, right at home. Quite a little for the drug trade is put up in one-ounce cakes, 40 cakes to the box, and sold at $1.00 a box. Honey is sold largely in square jars; and if it becomes candied before the retailer sells it, it is exchanged for that which is liquid."

Mr. L. Eastwood, of Lucas Co., Ohio, one of the modern "old-timers" in bee-keeping, writing Aug. 9, said:

> "Last year my bees did nothing, but they are now making up for lost time. I am nearly blind, and can't read any more, and hearing gone. I still claim to be the oldest practical bee-keeper."

Mrs. Mary E. Willis, wife of Mr. L. M. Willis, a prominent bee-keeper of Clark Co., Wis., was buried Tuesday, Aug. 3, 1897. The local newspaper speaks very highly of the life of Mrs. Willis, who had hosts of faithful friends, because she herself was a friend faithful and true. The sincere sympathies of the Bee Journal readers will go out with ours to Mr. Willis in his severe affliction.

Herr F. W. Vogel, editor of the Bienen-Zeitung, died April 12, 1897. He was a man of excellent talents, and much revered by German bee-keepers. Mr. F. Greiner speaks of him thus in a recent number of Gleanings:

> In Vogel the German bee-keepers (and for that matter the bee-keepers of the world) have lost out of their ranks a man of rare ability. He has been trying with untiring zeal to disclose the mysteries hidden in the bee-hive. It seems that, where many others could see nothing, he saw clearly. With the microscope he was simply a genius. In dissecting the most minute insects and their organs he was a master with perhaps few equals. How often have I been astonisht and surprised at his accomplishments along this line! During his life's career honors have been bestowed upon him by crowned heads of Europe, they having repeatedly taken notice of him, decorated him, etc. He was honorary member of quite a number of bee-keepers' associations and other societies for the promotion of science of his own and foreign countries.
>
> For years he has been the leading spirit in the annual Wanderversammlung of Germany's and Austria's bee-keepers. The success of these meetings must be largely attributed to him, to his qualifications as a manager, his fitness in general. No discord ever entered into these meetings. In the May issue of the Bienen Zeitung Dr. Dzierzon and Bergfeld sing the praises of Vogel, give expression to their sorrow, and with that they express what all the bee-keepers of Germany feel.
>
> It seems as tho I had lost a long-loved friend. Vogel will always be remembered.

Somnambulist—he or she who gathers up the "Wayside Fragments" for the Progressive Bee-Keeper—refers thus to the Buffalo convention, to be held next week, beginning Tuesday forenoon:

> "Ho, for Buffalo! is the cry now. The G. A. R. people are advertising our convention for us. Scarcely can we pick up a paper but that we find some reference to Buffalo. May the meeting be the grandest one up to date, is the sincere wish of Sommy."

That is just what we have claimed all along, that when it once becomes known that the national bee-keepers' convention is held at the same time and place as the G. A. R. meeting each year, they will help to advertise our "show" as well as their own. But it can better be told after this month whether or not it is a success for bee-keepers to thus meet. We hope it will be just the thing.

By the way, the above paragraph by Somnambulist is, we believe, the only reference to the Buffalo convention in the whole August number of the "Progressive"—not a single notice giving the date of the meeting, or at what particular place in Buffalo it is to be held. Surely, that doesn't look very "progressive." No bee-paper can afford thus to slight the only national organization of bee-keepers in this country that holds annual meetings. One would naturally think that as one of the Progressive Bee-Keepers' own editors is on the Buffalo program, it at least would have shown him the deserved courtesy to have announced that fact.

☞ See "Bee-Keeper's Guide" offer on page 528.

BEE-BOOKS

SENT POSTPAID BY

George W. York & Co.,

Chicago, Ills.

Bees and Honey, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages, and 245 illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold-lettered. Price, $1.00.

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Bee-Keepers' Guide, or Manual of the Apiary, by Prof A. J Cook, of the Michigan Agricultural College.—This book is not only instructive and helpful as a guide in bee-keeping, but is interesting and thoroughly practical and scientific. It contains a full delineation of the anatomy and physiology of bees. 460 pages; bound in cloth and fully illustrated.

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A B C of Bee-Culture, by A. I. Root.—A cyclopædia of 400 pages, describing everything pertaining to the care of the honey-bees. It contains 300 engravings. It was written especially for beginners Bound in cloth. Price, $1.25.

Advanced Bee-Culture, Its Methods and Management, by W Z. Hutchinson.—The author of this work is too well known to need further description of his book. He is a practical and entertaining writer. You should read his book. 90 pages, bound in paper, and illustrated. Price, 50 cts.

Rational Bee-Keeping, by Dr. John Dzierzon—This is a translation of his latest German book on bee-culture. It has 350 pages: bound in paper covers, $1.00

Bienen-Kultur, by Thomas G. Newman.—This is a German translation of the principal portion of the book called BEES OF HONEY. 16 page pamphlet. Price, 40 cents.

Convention Hand-Book, for Bee-Keepers. Thomas G. Newman.—It contains the parliamentary law and rules of order for Bee-Conventions—also Constitution and By-Laws, with subjects for discussion, etc. Cloth, gold-lettered. Price, 25 cts.

Thirty Years Among the Bees, by Henry Alley.—Gives the results of over a quarter-century's experience in rearing queen-bees. Very latest work of the kind. Nearly 100 pages. Price, 50c.

Why Eat Honey?—This Leaflet is intended for FREE distribution, to create a Local Market. 100 copies, by mail, 30 cts.: 500 for $1.25; 1000, $2.00.

How to Keep Honey and preserve its richness and flavor. Price same as Why Eat Honey.

Alsike Clover Leaflet.—Full directions for growing. 50 for 25 cts.; 100 for 40 cts.; 200, 70c.

Apiary Register, by Thos. G. Newman.—Devotes two pages to a colony. Leather binding. Price, for 50 colonies, $1.00; for 100 colonies, $1.25.

Preparation of Honey for the Market, including the production and care of comb and extracted honey. A chapter from BEES AND HONEY Price, 10 cents

Bee-Pasturage a Necessity.—This book suggests what and how to plant It is a chapter from BEES AND HONEY. Price, 10 cents.

The Hive I Use, by G. M. Doolittle. It details his management of bees, and methods of producing comb honey. Price, 5 cents.

Dr. Howard's Book on Foul Brood.—Gives the McEvoy Treatment and reviews the experiments of others. Price, 25 cts.

Silo and Silage, by Prof. A. J. Cook.—It gives the method in operation at the Michigan Agricultural College. Price, 25 cts.

Winter Problem in Bee-Keeping, by G. R. Pierce. Result of 25 years' experience. 30 cts.

Handling Bees, by Chas. Dadant & Son.—A Chapter from Langstroth Revised. Price, 8 cts.

History of Bee-Associations, and Brief Reports of the first 20 conventions. Price

Foul Brood Treatment, by Prof. F. R. Cheshire.—Its Cause and Prevention. Price, 10 cts.

Foul Brood, by A. R. Kohnke.—Origin. Development and Cure. Price 10 cts.

Practical Hints to Bee-Kee-Keepers—by CHAS. F. MUTH. Also contains a Foul Brood Cure and How to Winter Bees. 40 p.; 10 cts.

Bee-Keeping for Profit, by Dr. G. L. Tinker.—Revised and enlarged. It details the author's "new system, or how to get the largest yields of comb or extracted honey." 80 p.; illustrated, 25c.

Emerson Binders, made especially for the BEE JOURNAL, are convenient for preserving each number as fast as received. Not mailable to Canada. Price, 75 cts.

Commercial Calculator, by C. Ropp.—A ready Calculator, Business Arithmetic and Account-Book combined in one. Every farmer and business man should have it. No. 1, bound in water proof leatherette, calf finish. Price, 40 cts. No. 2 in fine artificial leather, with pocket, silicate slate, and account-book. Price, 60 cts.

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Garden and Orchard, by Chas. A. Green—Gives full instructions in Thinning and Marketing Fruits; Pruning, Planting and Cultivating; Spraying, Evaporation, Cold Storage, Etc. 94 pages, illustrated. Price, 25 cts.

Kendall's Horse-Book.—35 pictures, showing positions of sick horses, and treats on all their diseases. English or German. Price, 25 cts.

Lumber and Log-Book.—Gives measurements of lumber, logs planks; wages, etc. 25c.

Maple Sugar and the Sugar Bush, by Prof. A. J. Cook.—Full instructions. Price, 35 cts.

Grain Tables, for casting up the price of grain, produce, hay, etc. Price, 25 cts.

Capons and Caponizing, by Dr. Sawyer, Fanny Field, and others.—Illustrated. All about caponizing fowls, and thus how to make the most money in poultry-raising. 64 pages. Price, 30 cts.

Our Poultry Doctor, or Health in the Poultry Yard and How to Cure Sick Fowls, by Fanny Field.—Everything about Poultry Diseases and their Cure. 64 pages. Price, 30 cts.

Poultry for Market and Poultry for Profit, by Fanny Field.—Tells everything about the Poultry Business. 64 pages. Price, 25 cts.

Turkeys for Market and Turkeys for Profit, by Fanny Field.—All about Turkey-Raising. 64 pages. Price, 25 cts.

Rural Life.—Bees, Poultry, Fruits, Vegetables, and Household Matters. 100 pages. 25 cts.

Potato Culture, by T. B. Terry.—It tells how to grow them profitably. Price, 40 cts.

Hand-Book of Health, by Dr. Foote.—Hints about eating, drinking, etc. Price, 25 cts.

Bee-Keepers' Directory, by H. Alley.—Latest methods in Queen-Rearing, etc. Price, 50c.

Book Clubbing Offers.

(Read Carefully.)

The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only ONE book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted, see postpaid prices given with the description of the books on this page. Following is the clubbing-list:

1. Langstroth on the Honey-Bee	$2.00
2. A B C of Bee-Culture	2.00
3. Bee-Keeper's Guide	1.75
4. Bees and Honey [Cloth bound]	1.65
5. Doolittle's Scientific Queen-Rearing	1.75
6. Dr. Howard's Foul Brood Book	1.10
7. Advanced Bee-Culture	1.30
9. Bienen-Kultur [German]	1.20
11. Rational Bee-Keeping [Paper bound]	1.75
12. Thirty Years Among the Bees	1.30
13. Bee-Keeping for Profit	1.15
14. Convention Hand-Book	1.15
15. Poultry for Market and Profit	1.10
16. Turkeys for Market and Profit	1.10
17. Capons and Caponizing	1.10
18. Our Poultry Doctor	1.10
19. Green's Four Books	1.15
21. Garden and Orchard	1.15
23. Rural Life	1.10
24. Emerson Binder for the Bee Journal	1.60
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26. Commercial Calculator, No. 2	1.40
27. Kendall's Horse-Book	1.10
30. Potato Culture	1.20
32. Hand-Book of Health	1.10
33. Dictionary of Apiculture	1.35
34. Maple Sugar and the Sugar Bush	1.20
35. Silo and Silage	1.10
36. Winter Problem in Bee-Keeping	1.30
37. Apiary Register (for 50 colonies)	1.75
38. Apiary Register (for 100 colonies)	2.00
39. Bee-Keepers' Directory	1.30

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Send for our new catalog.
Practical Hints" will be mailed for 10c. in stamps. Apply to—

Chas. F. Muth & Son, Cincinnati, Ohio.

Please mention Bee Journal when writing.

Honey - Clovers !

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
Alsike Clover	.70	$1.25	$3.00	$5.75
Sweet Clover (white)	.60	1.00	2.25	4 00
White Clover	.90	1.60	3.75	7.00
Alfalfa Clover	.60	1.00	2.25	4.00
Crimson Clover	.55	.90	2.00	3.50

Prices subject to market changes.

Add 25 cents to your order, for cartage, if wanted by freight.

Your orders are solicited.

GEORGE W. YORK & Co.
CHICAGO, ILL.

Please mention Bee Journal when writing.

THE ROUND-UP !

I am still prepared to fill orders promptly with **Fine Pure-Mated Queens**, at 60 cts. each for Untested. Tested, with five-banded bees predominating, 75c. Select Tested, producing nearly all five-banded bees, $1.00. Breeders, $2.00. Correspondence solicited, and an interesting pamphlet on queen-rearing furnisht on application.

Money Order office—Warrenton.

W. H. PRIDGEN,
21A13t CREEK, Warren Co., N. C.

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ITALIAN QUEENS

"Good Yellow Ones"—60c each: 6 for $3.00.

1-LB. HONEY-JARS $1.50 per gross.

Catalog of Apiarian Supplies free.

I. J. STRINGHAM,
105 Park Place. NEW YORK, N. Y.
APIARY—Glen Cove, L. I.

Please mention Bee Journal when writing.

Tested Adel Queens

50 CENTS EACH

My new [1897] book on Queen-Rearing will give a method for rearing Queens in the brood-chamber while the queen is present. Mailed free to all who purchase Queens.

H. ALLEY,
32A4 **Wenham, Mass.**

Please mention Bee Journal when writing.

FOR THE G. A. R. ENCAMPMENT,

to be held at Buffalo, N. Y., tickets will be sold via the Nickel Plate Road at rate of $10.50 for the round trip. Returning either via rail or boat to Cleveland. Arrangements have been made for parties wishing to remain in sleeping cars at Buffalo, to have the cars trackt convenient to streetcar lines to any part of the city. Call on or address J. Y. Calahan, Gen'l Agent, 111 Adams St., Chicago, Ill. 28

General Items.

Bees Did Well.

Bees have done well this season. Mine had the swarming fever during May and June, but I will have quite a surplus. L. WHITE.

Caldwell Co., Mo., Aug. 6.

Introducing Queens.

This is almost always a more or less hazardous undertaking. The usual way of releasing them now-a-days is to allow the bees to open the cage by eating candy out of the entrance. Mr. W. H. Pridgen says in his catalog that it is an improvement to release the escort that accompanies the queen and then replace it with the same number of *real young bees* taken from the colony into which it is proposed to introduce the queen. It is more difficult to introduce queens to hybrid bees than to any others that I have tried. Sometimes I found it necessary to make them hopelessly queenless before I could succeed. Take away the queen and all of the unsealed brood and bees will accept a queen invariably, unless they have been a long time queenless—at least such has been my experience.—Review.

The Honey Season a Failure.

The harvest is past, and our bees have not enough honey to live on until spring—the first failure since I have kept bees. This is the first year that I have known the basswood to fail, and it is our only hope for surplus honey. We have an abundance of white clover, but it yields no nectar, for some cause unknown to me. I think that 40 per cent will not cover the loss last winter in cellar-wintering; too much rain caused the cellars to be so very damp, and as there was no young brood in the fall the old bees had to die off. We had too cold weather in June, and too much rain. Last night we had a storm that laid the grain low. Bugs, rust and storms are playing havoc with our crops, and the prosqects are not very flattering. Nevertheless we live in hopes of a better day, when the "old things have past away and all things are become new." F. C. SMITH.

Pierce Co., Wis., July 25.

Rearing Queens—A Report.

In the July 15 number of the American Bee Journal I read Dr. Miller's answers to questions in regard to rearing good queens. I followed his advice, and I am glad to say that I have succeeded in rearing four nice queens. This more than pays for the "Old Reliable" Bee Journal for at least three years.

If nothing happens to prevent, within a few weeks I may be able to see Editor York, and also a great many others whom I will be pleased to see at the Buffalo convention of the United States Bee-Keepers' Union, of which I am a member.

This is my second year in keeping bees. I started in last spring with 9 colonies, and have increast to 23. White clover was plentiful this year, and my bees have done splendidly. I have taken about 100 pounds of nice comb honey, and now they are busy on buckwheat,

Finest Alfalfa Honey!

IT SELLS ON TASTING.

The Honey that Suits All Who Buy It.

Low Prices Now!

We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 7½ cents per pound; 2 cans in one case, 7 cents; 4 cans (2 cases) or more, 6¾ cents. The Cash MUST accompany each order. **Fine Basswood** Flavor Honey at same price; also in 270-lb. barrels.

☞ A sample of either honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

GEORGE W. YORK & CO., 118 Michigan Street, CHICAGO, ILL.

Page & Lyon Mfg. Co. New London, Wisconsin,

Operates two sawmills that cut, annually, eight million feet of lumber, thus securing the best lumber at the lowest price for the manufacture of

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They have also one **One of the Largest Factories** and the latest and most-improved machinery for the manufacture of

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that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polisht on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equipt with best machinery, all combine to enable this firm to furnish the

Best Goods at the Lowest Prices.

Send for Circular and see the Prices on a Full Line of Supplies.

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BEE-KEEPERS We make

The Very Finest Line of **SUPPLIES** in the Market, and sell them at Low Prices.

Send for Free Illustrated Catalog and Price-List.

G. B. LEWIS CO., WATERTOWN, WIS.

Special Agent for the Southwest—E. T. ABBOTT, St. Joseph, Mo.

Mr. Abbott sells our Hives and Sections at Factory Prices.

That Queen-Clipping Device Free!

Works Like a Charm.

The Monette Queen-Clipping Device WORKS LIKE A CHARM. With it I have clipped 30 queens, all in one day, when examining my bees. WM. STOLLEY, Grand Island, Nebr.

Couldn't Do Without It.

I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now.

DR. GEO. LACKE, Newburgh, Ind.

PLEASE READ THIS OFFER TO PRESENT SUBSCRIBERS:

Send us *just one new name* for the American Bee Journal a year (with $1.00), and we will mail you the Queen-Clipping Device FREE of charge. Or, the Queen-Clipping Device will be sent postpaid for 30 cts. But why not get it as a Premium by the above offer? You can't earn 30 cts. any easier. Almost every bee-keeper will want this Device.

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Cash PAID FOR Beeswax

For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 24 cents per pound, CASH; or 27 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly,** for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,

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Of Bee-Hives, Sections, Shipping-Cases, Comb Foundation, and **Everything** used in the Bee-Industry.

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Write for Catalogs, Quotations, etc.

Inter-State Manufacturing Co.,
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BIG MONEY IN POULTRY

Eggs of 1st PRIZE WINNERS $1.00 PER SETTING to the readers of this paper only if you order now, of 30 leading varieties. Send 15c for the largest and most complete Poultry Guide ever published.
JOHN BAUSCHER, Jr.
Box 94, Freeport, Ills.

Please mention Bee Journal when writing.

Beautiful Honey-Cases

Made by the A. I. Root Co., at their prices.
Beeswax Wanted.
M. H. HUNT, Bell Branch, Mich.

Please mention Bee Journal when writing.

BEE-KEEPERS! Let me send you my 64-page Catalog for 1897.
J. M. Jenkins, Wetumpka, Ala.

Please mention Bee Journal when writing.

Full Colonies for Sale

—FINE ITALIAN-HYBRIDS—

30 miles northwest of Chicago, in 9-frame Langstroth hives. Bees in good condition. Only a few colonies. Too warm to ship long distance. Prices—$5.00 per colony; 5 colonies, at $4.75 each; or 10 colonies at $4.50 each.

GEORGE W. YORK & CO.,
CHICAGO, ILLS.

THE AMERICAN SHORT LINE
Between
CHICAGO AND BUFFALO, N.Y.

is the Nickel Plate Road. Tickets will be on sale Aug. 21st, 22nd and 23rd at $10.50 for the round trip account G. A. R. Encampment. Returning either via rail or water. Arrangements have been made for the comfort of our patrons. Extension of time will be granted until Sept. 20th, if tickets are deposited with the Joint Agent in Buffalo, between Aug. 23rd and 27th. Mr. J. Y. Calahan, Gen'l. Agent, 111 Adams St., Chicago, Ill., will be pleased to furnish information in regard to train service, etc.
H. Thorne, C. P & T. A. 29

which is just coming into bloom. I love to see them at work and study their nature. I keep from 8 to 10 colonies in the city, and the balance about eight miles away, where I intend to build up an apiary as it is a good location. I keep the common blacks and the hybrids at this place, and intend to Italianize them for they are the best, and I can handle them better.

We are having a great deal of rain now, and had it all summer, so it was hard work for the bees to gather much honey.
W. H. HEIM.
Lycoming Co., Pa., Aug. 5.

◆

Preventing After-Swarms.

I don't know but what I am rather late, but here is the best plan for preventing after-swarms:

Have all the bees that can fly go with the swarm, by having all colonies strong by feeding or doubling up, or the best way you know, so that they will swarm at the beginning of the honey-flow. When they swarm, hive the prime swarm on the old stand, removing the super, if any, to the new swarm; with a queen and drone excluding zinc between them. Set the old hive on top of the prime swarm, allowing it to remain there two or three days. By that time all the younger bees that have ever been out of the hive will unite with the younger swarm below.

The afternoon of the second day, the old colony will become so depleted of bees (if the weather has been favorable) that they will give up swarming any more, and will begin to carry out drone-brood. Then carry them to a new stand. They will swarm no more, but will build up to a good strong colony by fall, and may store some fall honey.

In this way we get extra strong colonies that will store more honey than from the two together if the queen-cells were cut out. Crowd the brood-chamber with bees instead of contracting it.
H. W. SAVAGE.
Sauk Co., Wis., Aug. 5.

◆

Too Much Rain.

We are having a good deal of rain—too much, in fact. HENRY ALLEY.
Essex Co., Mass., Aug. 5.

◆

Selling in the Home Market.

The white honey harvest is now gone, and on footing up I find that I have over 1,000 pounds of the very finest honey I ever produced. I have sold some in the home market, as I find that more profitable than to ship. I go to the groceries and ask them if they would like some nice honey. Their first reply is, "How do you sell it?" I give them the price and conditions I sell on, and they generally take a case to try, and once started they are willing to take more. So I bring in more as fast as they have sold out, and in that way keep my honey in all the leading stores, and get a fair price for it. So far I have gotten 15 cents per pound, and I allow the grocery keeper 2 cents per pound out of this for handling my honey.

But this year honey is brought in from all kinds of bee-keepers that have a few colonies, and do not attend to them. Their sections are dirty, and not fit to be seen, but still they will come to town and sell for whatever they are offered,

Foundation —Sections— Hives or any Other Supplies.

If you are in a **rush,** send me your order. I sell **the best only,** and fill orders promptly at LOWEST PRICE. **Beeswax wanted in exchange.**

Working Wax Into Foundation for CASH A Specialty.

☞ Write for Catalog and Price-List, with Samples of Foundation and Sections.

GUS DITTMER,
AUGUSTA, WIS.

Please mention Bee Journal when writing.

"WATCH POUDER'S AD"

SEE THAT WINK!

Bee-Supplies! ROOT'S GOODS at Root's Prices.

Pouder's Honey-Jars, and every thing used by bee-keepers. Prompt service, low freight rate. Cat free. Walter S. Pouder,
162 Mass. Ave.,
INDIANAPOLIS, INDIANA

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☞ IF YOU WANT THE —BEE-BOOK

That covers the whole Apicultural Field more completely than any other published, send $1.25 to Prof. A. J. Cook, Claremont, Calif., for his

Bee-Keeper's Guide.

Liberal Discounts to the Trade.

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PATENT WIRED COMB FOUNDATION

Has No Sag in Brood-Frames

Thin Flat-Bottom Foundation

Has No Fishbone in the Surplus Honey.

Being the cleanest is usually worked the quickest of any Foundation made

J. A. VAN DEUSEN.
Sole Manufacturer,
Sprout Brook Montgomery Co., N. Y.

Please mention Bee Journal when writing.

If You Keep but One Remedy in the house it should be YELLOWZONES

They Combine the Virtues of a Medicine Chest.

The Very Best general-service Remedy to be had **AT ANY PRICE.**

A supply of Zonet Cathartics is now added to each box.

100 in a Box, $1.00—17 in a Box, 25c.

W. B. House, Drawer 1, Detour, Mich.

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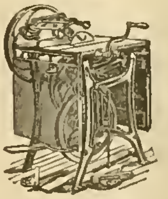
Please mention Bee Journal when writing.



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Can do the work of four men using hand tools, in Ripping, Cutting-off, Mitring, Rabbeting, Grooving, Gaining, Dadoing Edging-up, Jointing Stuff etc. Full Line of Foot and Hand Power Machinery Sold on Trial. Catalogue Free.

SENECA FALLS MFG. CO.,
46 Water St SENECA FALLS, N. Y

Please mention Bee Journal when writing.

Italian Queens **By Return Mail.**

Untested, 50c.; Tested, $1.00.
Nuclei, 2 frame, $2.00, including a good Queen
Bees by the Pound.
E. L. CARRINGTON,
22Atf **De Funiak Springs, Fla.**

Please mention Bee Journal when writing.

Van Deusen Thin Fdn.

A few 25-pound boxes of Van Deusen Thin Super Comb Foundation at $11.00 per box. Be quick if you want a box of it. Address,

THE A. I. ROOT CO.,
118 Michigan St. - CHICAGO, ILL.

Employ Nature

The best physician to heal your ills. Send for FREE Pamphlet explaining how diseases of the Blood, Skin, Liver, Kidneys and Lungs can be cured without drugs.

F. M. SPRINGS CO.,
Lock Box No. 1 **LIBERTYVILLE, ILL.**
Please mention Bee Journal when writing.

—A GENUINE—

Egg Preservative

That will keep Hen's Eggs perfectly through warm weather, just as good as fresh ones for cooking and frosting. One man paid 10 cents a dozen for the eggs he preserved, and then later sold them for 25 cents a dozen. You can preserve them for about **1 cent per dozen.** Now is the time to do it, while eggs are cheap.

Address for Circular giving further information—

Dr. A. B. MASON,
3512 Monroe Street, - TOLEDO, OHIO.
Please mention Bee Journal when writing.

A Special Booklet Bargain!

For a limited time we wish to make our readers a **special offer** on booklets on Bees, Poultry, Health, etc. Upon receipt of **75 cents** we will mail any **6** of the list below: and **for $1.25** we will mail the **whole dozen**:

1.	Foul Brood, by Dr. Howard	25c
2.	Poultry for Market and Profit	25c
3.	Turkeys for Market and Profit	25c
4.	Our Poultry Doctor	30c
5.	Capons and Caponizing	30c
6.	Hand-Book of Health, by Dr. Foote	25c
7.	Kendall's Horse-Book	25c
8.	Rural Life	25c
9.	Ropp's Commercial Calculator	25c
10.	Foul Brood, by Kohnke	10c
11.	Silo and Silage, by Prof Cook	25c
12.	Bienen-Kultur, by Newman	40c

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Bee-Hives, Sections, Shipping-Cases—everything used by bee-keepers. Orders filled promptly. Send for catalog. MINNESOTA BEE-KEEPERS' SUPPLY MFG. CO., Nicollet Island, Minneapolis, Minn.

22Atf CHAS. MONDENO, Mgr.
Please mention Bee Journal when writing.

$10.50 TO BUFFALO, N. Y.
via
THE NICKEL PLATE ROAD

account the G. A. R. Encampment. Choice of either rail or water trip returning. Do not miss this opportunity of attending one of the greatest reunions of the old comrades. Tickets on sale Aug. 21st, 22nd and 23rd. For full information, call or address J. Y. Calahan, Gen'l. Agent, 111 Adams St., Chicago, Ill. 27

◆

Minnesota.—The third annual meeting of the Southern Minnesota Bee-Keepers' Association will be held in Winona, Wednesday and Thursday, Sept. 15 and 16, 1897, opening at 9 o'clock, a.m., each day. All are cordially invited to come and bring their friends.

Winona, Minn. E. C. CORNWELL, Sec.

and of course this makes it hard to sell for a good price and get the cash, as they generally trade it out; but I prefer to sell at a low price, and be sure to get the cash, than to ship to the large cities and get little or nothing after the commission man gets through with it.

Most people buy honey as a luxury, and eat it only once or twice a year; and if they are poor working people they buy cheap corn syrups to sweeten their children with. They seem to think honey is too good for them, but when honey comes down in price to that of sugar, and is kept for sale as sugar in all towns and stores, it will be more often seen on the tables of the poor.

The prospects for a fall flow are good. My 35 colonies are in good condition to gather 1,000 pounds if we have good weather, as there is lots of smartweed on the low bottom lands.

I should like to go to the big convention in Buffalo, but I can't get away. So I will stay at home and read in the American Bee Journal of the big times ye editors have. G. E. NELSON.

Henry Co., Ill., Aug. 7.

◆

Report for the Season.

My bees did not winter well last winter; they got the diarrhea in the spring, and I lost 40 colonies. Then I had 50 left, and they were poor and weak. Some of them swarmed out three times. I got them up, and then some were queenless. I then equalized them, and by the first of June they were in good condition. On June 8 they began to swarm, and I had 35 swarms.

The honey season was good till July 15, but since then there has been no honey, and it is very dry here, so that the flowers are all dried up. I have sold my honey in the home market for 12½ and 13 cents, except 400 pounds that I have on hand. I secured 2,500 pounds this year.

I went to see my neighbor yesterday, who has 30 colonies. I askt how big his crop of honey was. "O, not much; I have it all in a crock," was his reply. He said the bees swarmed too much, and that the bees in this vicinity did not do much on that account.

M. J. KISTLER.

Allen Co., Ind., Aug. 7.

◆

Averaged Better Than Ever.

I am taking off honey as fast as my limited number of escapes will admit. I am selling honey at present in 12-section cases, at 12 cents per pound, but the bulk of it will have to be sold at 10 cents. All the honey hereabouts is of the finest quality white clover. My bees have averaged more per colony than ever before, and they have done nearly all their swarming in the afternoon, from 3 to 4 p.m.

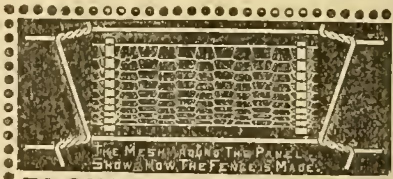
I think we should change the name of the New Union, as well as some other things in the Constitution. What's the matter with the "North American Bee-Keepers' Alliance" for a name? I hope the organization will secure money enough to get down to business right soon. S. H. HERRICK.

Winnebago Co., Ill., Aug. 6.

◆

The Season's Report.

We had a cold, wet, backward spring. June 12 the bees were at the starvation point. I think I had 50 colonies that


THE MESH AROUND THE PANEL SHOWS HOW THE FENCE IS MADE.

PLOW TO THE LINE.

How close can you plow to a hedge? Or for that matter a rail fence or a barb wire fence? Did you ever stop to count up your annual loss from not being able to cultivate that strip of land? You can plow right up to the posts of the **Keystone Fence.** There is no waste land when it is used. We send inquirers a free book on fence building.

KEYSTONE WOVEN WIRE FENCE CO.,
No. 8 Rush St., Peoria, Ill.
Please mention Bee Journal when writing.

LUNG DISEASES.

30 years' experience. If your case is sufficiently serious to require expert medical treatment, address

Dr. Peiro, 100 State St., Chicago.

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The Pacific Rural Press

The leading Horticultural and Agricultural paper of the Pacific Coast. Published weekly, handsomely illustrated 00 per annum. Sample Copy Free.

PACIFIC RURAL PRESS,
220 Market St., - SAN FRANCISCO, CAL.
Please mention Bee Journal when writing.

Golden Beauties and 3-Banded

Or IMPORTED STOCK.

Silver-Gray Carniolans.

Untested, 50c; Tested, 75c. Safe arrival guaranteed. Address,

Judge E. Y. TERRAL & CO.
26Atf CAMERON, TEXAS.
Please mention Bee Journal when writing.

FOR SALE.

1000 pounds of White Clover Comb Honey.
Price, 11 cts. per pound
600 lbs. White Clover Honey at 7c. per pound.
28A **Edw. E. Smith, Carpenter, Ill.**
Please mention Bee Journal when writing.

"Queens Given Away."

Gray Carniolans and Golden Italians.

We will give a fine Tested Queen (either race) to all customers ordering 6 Untested Queens, and a fine Select Tested Queen to all who order 12 Untested Queens at one time. The Queens given away will be sent to customers in August.

Grade and Prices of Bees and Queens	April May June	July Aug. Sept.
Untested Queen	$ .75	$ .65
Tested "	1.50	1.25
Select Tested Queen	2.50	2.25
Best Imported "	5 00	4.00
One L Frame Nucleus (no Queen)	.75	.50
Two " " "	1.50	1.00
Full Colony of Bees " (in new dovetailed hive)	5.00	4.00

We **guarantee** our Bees to be free from all diseases, and to give entire satisfaction.
Descriptive Price-List Free.

F. A. Lockhart & Co., LAKE GEORGE, N. Y.
13Dtf Please mention the Bee Journal.

See the premium offers on page 481!

did not have 50 pounds all told. June 13 two colonies commenced work in the sections. It was mostly fair and cold weather for the time of year until June 25. June 30 and July 1 and 2 I took my sections all off, and extracted 700 pounds of dwarf-maple and dogwood honey. July 12, at noon, began the worst rain Vermont has perhaps ever seen, sweeping away hay and grain, bridges, houses, barns, mills, and even some human lives were sacrificed before the floods would relent. The honey season was at an end. In 11½ days I secured 2,500 pounds of as nice honey as one would care to see. It was mostly gathered from red raspberry bloom. There is no basswood bloom here this year. Bees have not gathered any honey since the rain. I had 77 colonies, spring count, and now have 87. Most of my increase has been made since the honey season is over. My last natural swarm issued July 23. M. F. Cram.

Orange Co., Vt., July 31.

Drawing a Crowd to Sell Honey.

In our previous issue I promist to tell how to draw a crowd around groceries and other places where honey is sold. The experiment to which I shall refer was tried in Detroit. A large tobacco firm, who were using honey to sweeten their tobaccos, and who desired to advertise the fact, employed a bee-keeper to place an observatory hive just inside the show-window. On top of the hive was placed a row of nicely filled sections of honey. Of course, the hive was arranged so the bees could not fly out, and every few days the bees were given a rest, and another set of frames was put in their place. The experiment was a success in every way. Great crowds congregated about the window, and the tobacco-store was full of men who wanted to sample the new honey-tobacco. The crowds became so great that the police had to request the tobacco firm to discontinue their novel mode of advertising. They practiced the same method in another part of the city with the same success, and were, sooner or later, askt by the police to take the bees out of the window as it interfered with traffic.

While Gleanings is opposed, first, last, and all the time, to the use of tobacco in any form, it recognizes that here is a legitimate mode of advertising that may very often be employed profitably by *bee-keepers*. Prepare a hive having one glass side. In the hive is placed one comb of bees, the bees being shut off from the rest of the hive by a tight-fitting division-board. As only one side of a comb can appear at once, one comb is sufficient. Over the frame of bees are placed four nicely filled sections of honey to which also the bees have access. The whole is neatly encased in glass. The hive is shoved up close to the show-window, and over it a neat card:

"These bees belong to John Jones. His honey is for sale here. Inquire within."

I said in our last issue, and elsewhere in this number, that, in view of the enormous honey crop, bee-keepers should take every means possible to work up their home markets. Here is a scheme. Try it and report.—Gleanings.

Bee-Keeper's Guide—see page 528.

HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Aug. 9.—Fancy white 12c.; No. 1. 10 to 11c.; fancy amber, 9c.; No. 1, 7c.; fancy dark. 8c.; No 1. 7c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½c. Beeswax, 26 to 27c.

The offerings of comb honey are fully equal to the demand this week. The trade takes very sparingly of it during the fly time. There continues to be a light call for extracted, while for beeswax a steady demand continues.

Milwaukee, Wis., Aug. 14.—Fancy white, 12 to 13c.; No. 1, 10 to 11c; fancy amber, 8 to 10c.; No. 1, 7 to 8c.; fancy dark, 7 to 8c. Extracted, white, 5 to 6c.; amber, 4 to 4½c. Beeswax, 25 to 27c.

The remnants of old crop honey remaining are not very large, and mostly of common and medium quality, and such is very hard to sell at any price. There has been some new extracted received, but not of the BEST quality—think it was extracted too soon, as it is thin and watery, and not very salable. The demand is as good as usual at this season Think we are safe in holding out encouragement to shippers that for the new crop of choice qualities of comb and extracted honey this market will give them as good results as any other.

Cincinnati, Ohio, Aug. 9.—Fancy white, 11 to 13c.; No. 1, 10 to 11c.; No. 1 amber, 7 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½ to 4c. Beeswax, 20 to 25c.

Demand is fair so far for best qualities of comb honey. We have hardly ever yet, at this time of the year, disposed of as much honey as we did this season. Arrivals have been liberal so far.

Albany, N. Y., July 31.—Fancy white, 11@12c.; fancy amber, 7@8c.; fancy dark, 6@8c.; white, extracted, 5c; dark, 4c.

But very little is doing in honey this month. There is a small stock of inferior comb honey on the market, and quite a little extracted. Bees are said to be doing nicely in this section.

Minneapolis, Minn., Aug. 9. — Fancy white, 11 to 13c.; No. 1, 10 to 11c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c; fancy dark, 8 to 9c.; No. 1 dark, 6 to 7c. Extracted, white, 5 to 6c. Beeswax, 23 to 25c.

Stocks comparatively bare. Fair demand. Goods here now would meet with good sales.

Detroit, Mich., Aug. 10—Fancy white, 11 to 12c.; No. 1 white, 10-11c. Extracted, white, 5 to 5½c. Beeswax, 25 to 26c.

No dark honey of this year's crop yet offered.

New York, N. Y., Aug. 9.—Fancy white, 12c.; No. 1. 11c.; fancy amber, 10c. Extracted, white, 5 to 5¼c.; amber, 4½ to 4¾c. Beeswax, 26 to 27c.

There is some demand for new crop comb, and some lots we received sold at from 10 to 12c. a pound. Prices for new crop are not settled, as our market actually does not open up before about Sept. 1. Extracted: Market quiet and easy, with large supply from the South and California. We quote: California light amber, 4½ to 4¾c.; white, 5 to 5¼c. Southern, 50 to 55c. a gallon, according to quality. Beeswax without change.

Kansas City, Mo., Aug. 10.—Fancy white, 13c.; No. 1. 11 to 12c.; fancy amber, 10 to 11c.; No. 1, 9 to 10c.; fancy dark, 8 to 9c.; No. 1, 7 to 8c. Extracted, white, 5 to 5½c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 25c.

There is very little demand for honey this hot weather, but will improve with cooler weather.

Indianapolis, Ind., Aug. 7.—Fancy white, 10 to 12½c.; No 1, 9 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c. Beeswax, 25 to 27c.

I have received several lots of comb honey which was billed to me as "fancy white," but on opening a case I found that it was fancy white next to the glass only, the rest being old soiled sections with crooked combs and dark honey. I don't know that the power of the press will ever reach this class of producers, but such goods have to be recrated and reweighed, and are not satisfactory after all.

Boston, Mass., Aug. 9. — Fancy white, 13c.; No. 1. 12c. Extracted, white, 6 to 7c.; amber, 5 to 6c. Beeswax, 27c.

New comb now arriving in small lots, but fully equal to the demand. Beeswax is wanted, and practically none here.

St. Louis, Mo., Aug. 9.—Fancy white, 12 to 12½c; No. 1, 11 to 11½c.; fancy amber, 10 to 10½c.; No 1, 9 to 9½c. fancy dark, 8 to 8½c.; No. 1, 5 to 7c. Extracted, white, 5 to 5½c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 24 to 24½c.

The weather so far this season has been too warm for the free movement of honey, but with the present prices on sugar we think there should be a good demand for extracted honey at the above prices. One car of 24,000 pounds sold since our last quotation on basis of above prices. Beeswax finds ready sale at 24c. for prime, while choice stock brings a little more.

San Francisco, Calif., Aug. 4. — White comb, 1-lbs., 7 to 9c.; amber comb, 4 to 6c. Extracted, white, 4½ to 5c.; light amber, 3½ to 4c.; dark tule, 2¾c. Beeswax, fair to choice, 25-26c.

While the market is not especially weak, it is quiet. There is considerably more offering than can be accommodated with custom at full current figures. Only on local account are top prices obtainable, and the quantity required for home use is light. There are no excessive stocks of beeswax on the market, and not likely to be the current season.

Cleveland, Ohio, Aug. 10.—Fancy white, 12½ to 13c.; No. 1, 11 to 12c.; fancy amber, 9c. Extracted, white, 6 to 7c.

Very little new honey in the merket. The demand for new honey the past week was fairly well thus early in the season. No demand for old honey whatever.

Buffalo, N. Y., Aug 9.—Fancy white, 11 to 12c.; No. 1, 9 to 10c., fancy amber, 7 to 8c.; No. 1, 6½ to 7c.; fancy dark, 5 to 7c.; No. 1, 5 to 7c. Extracted white, 5 to 6c.; amber, 4½ to 5c.; dark, 4 to 4½c. Beeswax, 23 to 28c.

Moderate demand for any grade. Better hold till October, when we can place liberal quantities.

Philadelphia, Pa., Aug 10.—Fancy white, 12 to 13c; No 1, 11 to 12c.; fancy amber, 10 to 11c.; No. 1, 9c.; fancy dark, 8c.; No. 1, 6 to 7c. Extracted, white, 5 to 6c.; amber, 4 to 5c; dark, 4c. Beeswax, 25c.

Honey arriving freely. But little demand during this hot weather. California honey already bearing down the market.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. Burnett & Co., 163 South Water Street.

New York, N. Y.
Hildreth Bros. & Seoelken.
120 & 122 W. Broadway.

Kansas City, Mo.
O. C. Clemoms & Co., 423 Walnut St.

Buffalo, N. Y.
Batterson & Co., 167 & 169 Scott St.

Hamilton, Ills.
Chas. Dadant & Son.

Philadelphia, Pa.
Wm. A. Selser, 10 Vine St.

Cleveland, Ohio.
A. B. Williams & Co., 80 & 82 Broadway.

St. Louis, Mo.
Westcott Com. Co., 213 Market St

Minneapolis, Minn.
S. H. Hall & Co.

Milwaukee, Wis.
A. V. Bishop & Co.

Boston, Mass.
Blake, Scott & Lee., 57 Chatham Street.

Detroit, Mich.
M. H. Hunt, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
Walter S. Pouder, 162 Massachusetts Ave

Albany, N. Y.
Chas. McCulloch & Co., 380 Broadway.

Cincinnati, Ohio.
C. F. Muth & Son, cor. Freeman & Central Avs.

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I ARISE

TO SAY to the readers of the BEE JOURNAL that **DOOLITTLE** has concluded to sell —BEES and QUEENS— in their season, during 1897, at the following prices:

One Colony of Italians on 9 Gallup frames, in light shipping-box	$6 00
Five Colonies.....	25 00
Ten Colonies......	45 00
1 untested queen.	1 00
6 " queens	5 50
12 " "	10 00
1 tested Queen...	$1 50
3 " Queens.	3 50
1 select tested queen	2 00
3 " " Queens	4 00
Select tested queen, previous season's rearing..	4 00
Extra Selected for breeding, THE VERY BEST..	5 00

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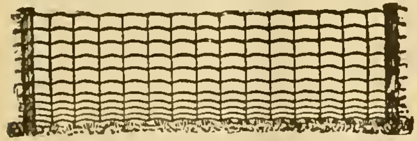

Competitors Carry One Point.

Certain manufacturers who use cheap material put together without provision for the demands of nature (contraction and expansion) are able to pay **big commissions.** This is the **one claim** for superiority with which they often try to bribe agents to desert us. They seldom win, as a conscientious man will refuse to handle **inferior goods** even for greater profit.

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1000 for	2.50	1000 for	2.00
2000 for	4.75	2000 for	3.75
3000 for	6.75	3000 for	5.25

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Price-List of Sections, Foundations, Veils, Smokers, Zinc, Etc., Sent on application.

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This 15th and latest edition of Prof. Cook's magnificent book of 460 pages, in neat and substantial cloth binding, we propose to give away to our present subscribers, for the work of getting NEW subscribers for the American Bee Journal.

A description of the book here is quite unnecessary—it is simply the most complete scientific and practical bee-book published today. Fully illustrated, and all written in the most fascinating style. The author is also too well-known to the whole bee-world to require any introduction. No bee-keeper is fully equipped, or his library complete, without "THE BEE-KEEPER'S GUIDE."

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Acknowledged to be the best in the world. Cleans supers of bees without smoking, brushing, shaking, or uncapping the honey.

The Root-Cowan Extractors.

Have been and are the standard the world over.

Packages for Extracted Honey.

We are head-quarters for everything in this line.

The New Weed Drawn Foundation.

This is a success. Don't take the statement of any one else, but send for samples and try it yourself. Pieces 4 inches square, running about 11 feet per lb., are now being sent out. **Prices**—3 pieces, 4x4, 10c.; by mail, 12c. 10 pieces, 25c.; mail, 30c. 24 pieces, 50c.; mail, 60c. And if we can catch up on orders for the small lots, we will furnish it in half-pound packages at 75c. with other goods, or 90c. postpaid.

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We would like to have each of our present readers send us *two new subscribers* for the Bee Journal before October 1, 1897. That surely will not be hard to do, when each will need to pay *only 25 cents* for the last 4 months of this year, or only about 6 cents a month for the weekly American Bee Journal. Any one with only a colony or two of bees should jump at such an offer as that.

Now, we don't ask you to work for us for nothing, but will say that for each **two** new 25c. subscribers you send us, we will mail you your choice of *one* of the following list:

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1 copy each "Preparation of Honey for the Market" (10c.) and Doolittle's "Hive I Use" (5c.)	15c.
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Kohnke's "Foul Brood" book	25c.
Cheshire's "Foul Brood" book (10c.) and Dadants' "Handling Bees" [8c.]	18c.
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We make the above offers only to those who are now subscribers; in other words, no one sending in his own 25 cents as a new subscriber can also claim a choice of the above list.

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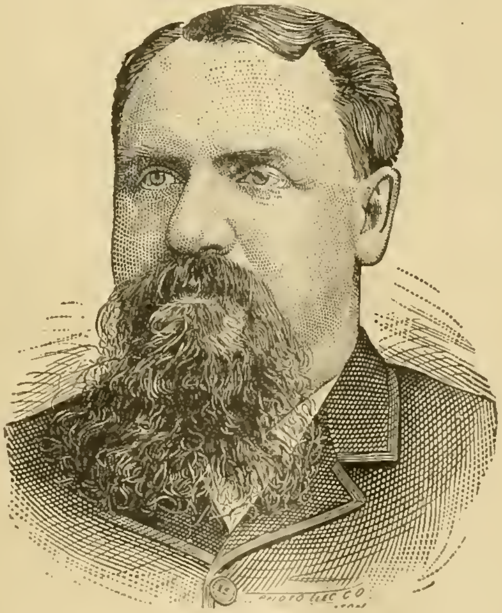
Contributed Articles

Preparing Honey for Market—Bee-Intelligence

BY G. M. DOOLITTLE.

In this locality, the crop of white honey will all be off the hive by the middle of August, when we are ready to commence to prepare it for market. In order that the honey may be ripening and growing better every day after it leaves the hive, the honey-room should be kept at a temperature of from 85° to 90°, if possible, for with this temperature the honey will be thickening and growing better in the cells, which will give it a fine appearance, instead of that watery, unattractive look which will soon come to comb honey that is stored in a cellar, or other damp, cool place.



G. M. Doolittle.

Some bee-keepers work hard all the season to secure a crop of honey, then store it in such an unsuitable place that when it reaches market they do not get nearly so much for their labor as they would did they spend more thought on having their product reach the market in attractive shape. If the proper temperature in the honey-room cannot be kept up otherwise, an oil-stove will be found an excellent thing to do it with, as the flame can be so regulated by a proper manipulation of the wicks, that the desired temperature can be maintained at all times.

Many of our Eastern bee-keepers store their honey in an upper room, or attic to the house; and where this can be done without too much lugging and lifting, there is no better place to store honey. The hot noon-day sun heats this upper room and thoroughly dries every part of it, thus causing the pile of honey to become very warm before the sun sinks behind the western hills, while the heated pile of honey keeps the temperature of the room up till well toward morning, thus keeping an even temperature of a high degree, which will cause even the honey in the unsealed cells next the sides of the sections, to become ripened to a degree sufficient to keep it from running out, which otherwise would be the case. All know how annoying it is to pick up a section of honey and have the honey from these few unsealed cells drip about the floor, and on the hands and clothing, as it always will do if the section is left a few days in a damp place.

Having the honey stored in so high a temperature as is necessary for its thorough ripening, causes the eggs of the wax-moth to hatch on the combs, should there happen to be any such eggs on them; therefore, it is best to look at the honey often so as to detect these worms as soon as possible after they hatch from the egg. If little, flour-like lines are seen on many of the combs, this shows that the larva has commenced its work, and the honey should be sulphured, as I directed in a former number of the American Bee Journal.

In two or three weeks' time the honey will be thoroughly ripened, when we are ready to go about preparing it for market. All propolis or bee-glue should be carefully removed from each section. This is best done with an old table or other knife which has its blade broken or cut off within one or two inches of the handle, when by filing or grinding the portion left, at right angles, we have square corners on all sides, which seem to be just right for taking off the bee-glue without cutting into the wood. Have your crate by your side, and as fast as a section is cleaned, pack it nicely away in the crate, keeping on till it is full.

In crating honey it is always proper to put the most perfect side of the sections out where they will be seen, the same as in doing up wool, putting fruit on a fruit-stand, etc. I once knew a man to tie up his wool with the dark or outside ends out, and he could hardly sell it at any price. Why? Not because the wool was not just as good, but because it did not look as well. Just so with a crate of honey. Market men, or any customer, want the best side out; but don't make the mistake some do, and fill up the center of the crate with dark or inferior honey.

Grade the honey, making three or more grades of it, and then put the best side of each grade out, where it will be in sight. In No. 1, put nothing but strictly white honey, or what is termed by some, "fancy" honey. In No. 2, put such white honey as may have combs slightly colored, or those having an uneven surface, or a few unsealed cells. In No. 3, that which is still more inferior. Then have a grade for dark honey, etc.; but keep an eye out that none of an inferior grade finds place in any crate bearing a more perfect number.

When the crate is full, if you wish to have it "gilt edged," put on the cover with bright, round-headed screws. This gives the crate a nice appearance, does not tend to break the honey by driving nails, and the cost is but a trifle more. To make still more attractive, sandpaper off the sharp corners and top of the crate, when it is ready to pack nicely away for shipment, when a sale is made, or to show to purchasers, or any company who may chance to call in.

Bear in mind, comb honey sells from looks more than anything else, and the nicer the appearance the better price it will bring.

"INTELLIGENCE IN BEES."

I see on page 419, that Mr. I. W. Beckwith takes exceptions to what I wrote in the Progressive Bee-Keeper, regarding the unchangeableness in the nature of bees, and attempts to prove that I was wrong in saying what I did.

When God created the animals of the earth after their kind, and pronounced them good, I am willing to accept the statement, and believe that they were *good*. If the honey-bee was *good* at that time, have we any reasons for believing that it is any *more* good now than then?

Will Mr. Beckwith attempt to prove that, because bees can find their hive when moved five feet from where it stood an hour before, in the year 1897, that they could not find their hive when moved one foot away six thousand years ago? This he must do if he would attempt to sustain his position. Or will he say, because, after a few hours of smelling around his bee-escape a bee happened to go in at the end of it, and afterward remembered where to go in, that no bee in its primeval state could ever have accomplisht such a feat? This he must do if he could prove that bees learn to do that which they formerly could not. Then will he say that any bee from the same colony, the next season, would find that hole one whit more readily than did his bee of the year before? This must be so if there is permanent evolution and progression.

The burden of proof lies with Mr. Beckwith and his compeers. We hope he will give us something tangible. I care not to attempt to stand in God's "shoes," but am willing that He should be "*All* and in *All*."

Onondaga, Co., N. Y., Aug. 3.

Some Foul Brood Questions Answered

BY WM. M'EVOY.

The following questions have been forwarded to me for reply in the American Bee Journal:

QUESTIONS.—1. When a colony is increasing in bees and gathering honey and storing surplus, do you think they are diseased enough to injure the surplus honey for food?

2. (*a.*) Do you know of any one's health being injured by eating honey affected by foul brood? (*b.*) If so, what would be the symptoms?

4. Don't you think that there is much honey sold every year stored by colonies affected with foul brood, the owners not aware of it?

5. What is the best course to pursue when foul brood is in a locality, and the owners of bees (small bee-keepers) don't know anything about it, and won't do anything to eradicate it?

6. Is there any way to tell, by the use of a magnifying glass, when honey contains foul-broody germs or spores?

J. H.

ANSWERS.—1. In a case like that, everything would depend upon the system of management, and whether the bees moved any of the honey from the brood-chamber (that was stored in the diseased cells) to the supers above—a thing they often do. Very many that keep bees don't use any queen-excluders, and in all such cases the brood in the top stories soon becomes diseased through the larvæ being fed honey *that has been stored in diseased cells;* and when the combs are being extracted, some of the foul matter will be thrown out in the honey. *Such honey is not fit for use.*

Wm. McEvoy, Foul Brood Inspector of Ontario, Canada.

2. (*a.*) No, I do not; but you and I will draw the line against such food. (*b.*) I don't know. We will leave this question to the medical men to answer. I have been pretty badly sickened from the horrid stench of foul-broody colonies while examining them.

4. Yes, and I know of some big losses in the Province of Ontario, through bee-keepers buying and feeding their colonies honey that was extracted from foul-broody colonies. These parties would not have fed such honey if they had known it was diseased.

5. Get one of N. E. France's Foul Brood Acts past; and after that appoint an inspector to examine all apiaries; instruct the people how to cure their colonies; and, where the owners or caretakers won't cure, burn every diseased colony for the public good, as it won't do to let people keep a few diseased colonies that will be no good to them, to ruin large apiaries for their neighbors that have cost a good deal, and are worth hundreds of dollars.

The credit of ridding out the disease by wholesale in the Province of Ontario, should be given to Mr. F. A. Gemmill, of Stratford. Before 1890 foul brood was spreading through our country at an alarming rate. Some men were keeping diseased colonies near fine apiaries, and others were selling their foul-broody colonies to be shipt into localities where the disease had never been. Mr. Gemmill (who is one of Canada's best bee-keepers) wrote to me at that time, saying that it would only be a question of time until all the apiaries of Ontario would be destroyed by foul brood if we did not get an Act past to stamp out the disease. Mr. Gemmill brought this matter before the Ontario Bee-Keepers' Association, and pusht it until he got the Act past for the good of his country.

6. Yes, by examining the honey stored in the cells where foul-brood matter had dried down. Hunting for foul brood germs in a quantity of honey that had been extracted from colonies not much affected with foul brood would be something like looking for a needle in a hay-stack.

It is certainly a real business bee-keeper that sent in the foregoing questions for answers. They are the most important ones for the bee-keepers' interests that I ever read.

Ontario, Canada, Aug. 13.

Overstocking a Locality with Bees.

BY PROF. A. J. COOK.

This is a subject that has been much discust among the bee-keepers of the East. Dr. Miller for years argued persistantly and forcibly for such measures, legal or moral, that would give each bee-keeper the exclusive control of his territory, and free him from the danger of others coming to trespass—if we may use so harsh a term—upon his domain and rights.

Mr. James Heddon urged exclusive possession, on two grounds: The new comer had no right, under the Golden Rule, to inflict his presence upon the one already establisht, and, besides this, it was supreme folly to do this—the resources would not give thrift to two parties in close proximity, and it stood to reason that the one in the field would have the vantage ground over the new comer, and while he would lose by the intrusion, the other would surely go to the wall.

Prof. A. J. Cook.

In the East, no one denies the proposition that a region may be overstockt, without it be one of the fortunate ones in the vast basswood forests of Wisconsin, and no good bee-keeper would think to locate in the immediate vicinity of a large apiary. It has been generally held that 100 colonies of bees—about the number that one person can care for well—were the maximum quantity for the average locality. This proposition seems to rest firmly on experience and reason alike. There are only so many flowers, and each flower contains only so much honey. It stands to reason, then, that an excessive number of bees would, per force, receive but a scant harvest.

In California, the proposition does not find such ready acceptance. I suppose everybody accedes to the logic just offered, and believes any region could be overstockt, as a sound mathematical conclusion. But when hundreds of colonies of bees are masht in a single apiary, and a hundred or more pounds of honey secured from each colony, as is the common experience in this favored clime in all good seasons, then many of our best apiarists shake their heads whenever we speak of overstocking in southern California.

One of our largest, most intelligent, and most successful southern California bee-keepers, who has 900 colonies of bees, and has harvested over 53 tons of honey the present season, expresses some scepticism as to overstocking in this region, and surely he would seem to have some ground for his doubts. Others have spoken to me in like mood.

Another very prominent bee-keeper, who two years ago with less than 600 colonies—I think about 500—to commence the season, which were increast to 600, took over 30 tons of extracted honey. This year, with the same number, he secured only 16 tons—explains his lessened crop on the very ground of overcrowding. Two years ago his occupancy was exclusive; this year another bee-keeper came to share the fruits.

Why is it thus? It seems to me that there are two reasons for this peculiarity in southern California. First, there is a very long season of flowers and nectar-secretion. The early bloom—eucalyptus and citrus—while it does not crowd the combs with honey, does give enough to stimulate breeding and secure splendid colonies by the time the later more prolific bloom carpets the plains and hillsides.

Again, the sages—the great source of the magnificent honey of southern California, better than which none is produced in any land or region—are not only very bountiful in their secretion of nectar, but are also very long in bloom, as are nearly all the plants of California. Thus, they are like the basswoods in producing immense quantities of the best honey, and greatly superior to the basswood in nearly or quite tripling the length of bloom of the linden.

I have heard some of the old bee-keepers of the linden regions of Wisconsin question the possibility of overstocking. This came from their own experience. The innumerable blossoms, and the generous nectar-drop in each bloom resulted in a tremendous harvest. The Californian, who is so fortunate as to be encircled with rich fields of sage and wild buckwheat, has even more to give assurance in the phenomenally long season of bloom.

Los Angeles Co., Calif.

Reminiscent—Honey-Sources—Marketing.

BY MRS. L. HARRISON.

I began the study of bee-culture in 1862, and sought information in every possible way—by books, periodicals, and from those engaged in its pursuit. As I call to mind these veterans, who left their own apiaries during busy times, and came a long distance to teach me how to introduce queens, divide colonies, etc., I can but admire their generosity and self-denial. They knew that if I reacht the goal my honey would come in competition with their own product. In my acquaintance during all these years I've found but one student in bee-culture who refused to impart all the information he possest, without money and without price. Is this generosity on the part of apiarists anything to do with the low price of honey? The first I produced brought 30 cents per pound, and was not offered for sale, but buyers sought for it.

SOURCES OF HONEY CUT OFF.

The State of Illinois has not as good bee-pasture as it had 35 years ago, with very few exceptions. Then wild flowers bloomed in wet places on farms, but now they are tilled, and the plow and mower cut off this supply. The old rail-fences have disappeared, and now but seldom a clump of golden-rod can be seen, seeking the protection of barbed-wire fencing. Along our water-ways the rich bottomlands, subject to overflow, are being levied and drained, thus depriving apiaries located near of their greatest source of honey. Shall we, like the Indian, be compelled to pitch our tents elsewhere?

This goodly land is for the white man and the honey-bee, and they will remain cultivating the soil and fertilizing the bloom. The time may come when the keeping of many colonies together will cease to be profitable; then farmers, gardeners and fruit-raisers will see the necessity of their keeping a few colonies of bees to fertilize their crops and provide their families with the purest sweet known. It may be better for the country to have bees equally disseminated than kept together in large numbers.

Mrs. L. Harrison.

SELLING HONEY TO THE BEST ADVANTAGE.

As the sources for honey are yearly growing less, we should watch every chance for making the most of what we have. Not a pound of honey or wax should be shipt to a distant market until the locality where it has been produced has a full supply. If the producer has not time to do this work, there are few places where there is not an enterprising boy or girl anxious to make money. Last fall and winter a young man canvast this city and adjacent towns carrying a large tin pail containing syrup with comb honey masht up fine in it, which he dipt out with a dipper; he never called at a house but once. If it had been pure honey, he would have been welcomed the second time.

A good way to dispose of honey is to engage to supply grocerymen with all they can dispose of, calling regularly. If a box of comb honey gets in a dilapidated condition, replace it with a fresh one. Peoria Co., Ill.

⁂

Spreading Brood and Making New Colonies.

BY DR. E. GALLUP.

Mr. S. A. Deacon, on page 469, asks about spreading brood in California. I am rearing bees, and have workt but very few colonies for surplus honey. You must understand that I will endeavor to give facts. I endeavor to save all the natural queens I can, therefore start many colonies of just one comb of hatching brood, and the bees are confined to that one comb by a division-board. A frame of hatching brood, a pint of bees, and a good, young, prolific queen as a starter is sufficient at any time from March 20 up to Aug. 1, in this locality. This frame of hatching brood gives the young queen a chance to deposit eggs, and as soon, or a little before, she wants more room, I insert another frame, either containing foundation or a starter. Now, a good queen will deposit an egg in every cell as fast as they are ready for her.

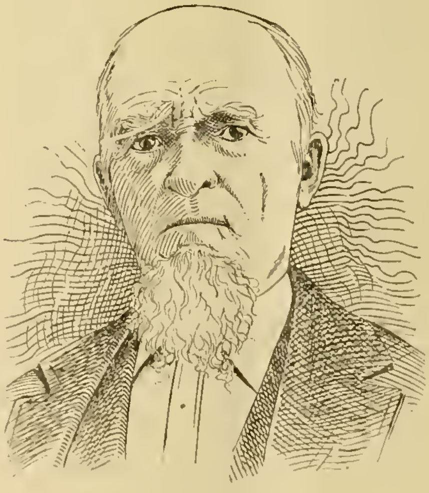
The next move is to spread those two combs, and insert another between, and the next move I spread the combs and insert two. Next I take out the division-board and insert three. This completes a colony of 8 frames. If an old colony swarms out until their numbers are reduced, I take out all the combs except just the number the bees can occupy, and confine them to that space by a division-board. I then take those surplus combs and give one each to my small colonies, instead of having them build combs. The old colony is treated on the same plan as the other small colonies.

I hived one small third swarm on two empty frames with starters, and now (Aug. 2) they have filled their 8-frame hive and a super, and the super is filled completely with sealed honey. There is this advantage in building up in this manner, we get all-worker combs with scarcely any exceptions.

If from any cause I have a colony reduced in numbers, either in spring or from losing its queen, or from a laying worker, I confine them to the number of combs they can fully occupy, even if it should be only one comb, and build them up in the above manner; or, if I want to hurry them along, I go to any populous colony and get a frame or two of hatching brood and give them a lift, as the case requires. If I take this brood from an old queen I replace with foundation, or the bees will build drone-comb.

I had rather a small second swarm, and when I hived them I confined them to three frames by spreading on the above plan; they have filled their hive, built all their own comb, and I have extracted 60 pounds of honey, and they have another super ready to extract. Now we will suppose I had hived them as many do, in a hive without using a division-board. They would probably have built three or four combs that the queen would partially occupy—if they built more it would be outside of the cluster, where the warmth would not be sufficient for the queen to deposit eggs, and the comb would be bulged on the outside, and in all probability have drone-comb, and in the fall I should have had a small, worthless colony to double up.

Right here I wish to say that there is no earthly use in having colonies to double up in the fall, if rightly managed (I will except queen-breeders). A small colony that fully occupies three combs, if confined to that space, will work with as much vim as the strongest colony in the apiary. But if we give them the whole hive, they all have to stay at home and do nothing, and perhaps starve. Allow a bee-space under the division-board the whole length, then have the entrance into the vacant space instead of in where the bees are, and they will not be troubled with robbers. Ever since I used the movable frames I have never had any doubling up. If I make late increase it is very simple to make a full colony at once, by taking a single comb of sealed brood from one strong colony, and one from another, and build them right up at once, if necessary; and many times the colony that we take the frame from is benefited, especially where they are honey-bound, as some of my colonies were last fall. You can readily see that if a colony is too full of honey in the fall, it is beneficial to take out a frame or two of brood, and insert foundation. This gives the queen room to lay fresh eggs, and the bees use up some of their surplus honey in drawing out the foundation, and they are in decidedly better condition for winter than they would be if let alone. Understand, I am now writing from a *California* standpoint, and for my locality.



Dr. E. Gallup.

The third week in June I had six starved-out black colonies come to me; three undertook to go in with my Italians, and were slaughtered, and three came and clustered right over my head, as much as to say, "Gallup, give us something to eat." I hived them on a frame of hatching bees. The next day I killed their queen and gave them an Italian, and to-day (Aug. 2) they are strong, full colonies. But I fed them for a few days until the Italians were old enough to gather stores. One of them was so nearly starved that when I shook them off the tree they could not fly. Orange Co., Calif.

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Prevention of Swarming—Some Hard Facts.

BY C. P. DADANT.

"Is it true that the Dadants have less than 5 per cent. of swarms, or are they just 'bragging?'—A READER."

Mr. Editor, they say that "a man convinced against his will, is of the same opinion still," but I do not believe it. I think it takes more evidence to convince some people than some others, but I believe that no one can help his or her belief, and when enough evidence is brought to bear, the most incredulous Thomas will "give in," mentally at least, tho he may not like to acknowledge it in public.

Since arguments do not seem to have convinced everybody who has read our articles, of the possibility of the prevention of swarming, allow me to bring forward the following facts, copied from our reports for 1897:

C. P. Dadant.

HAMILTON, Ill., July 21, 1897.

Account of the Dadant apiary on the Egan farm for the spring of 1897: Colonies of bees in spring, 50; number of swarms caught, 2; amount of honey to date, 2,500 pounds.

J. F. SCANNELL, *Tenant.*

WARSAW, Ill., July 23, 1897.

Account of the Dadant apiary on my farm for the spring of 1897: Number of colonies in spring, 69, ten of these being queenless; number of swarms caught, 2; amount of honey harvested to date, 2,100 pounds. L. SACK.

This farm is on the edge of the Mississippi bottoms, and its main crop is in August.

HAMILTON, Ill., July 29, 1897.

I take care of Mr. Dadant's bees at their home apiary and at the out-apiaries, and I know the attacht statements from the different farms to be correct. Their home apiary consisted in the spring of 80 colonies, and has not cast a single swarm that we know of, tho I believe one or two, or perhaps three, swarms may have escaped. The crop of honey of the home apiary to date is over 5,000 pounds. I made 16 artificial swarms at the home place, and 17 in the out-apiaries. F. M. LEFLER, *Apiarist.*

HAMILTON, Ill., July 29, 1897.

Statement of the Dadant apiary on the Hay farm for the spring of 1897: Number of colonies in spring, 79; number of swarms caught, none; amount of honey harvested, 3,000 pounds. There is about 1,000 pounds more honey on the hives now. JOS. VILLEMAIN, *Tenant.*

HAMILTON, Ill., July 20, 1897.

Statement of the Dadant apiary on my farm for the spring of 1897: Number of colonies in spring, 44; number of swarms caught, 1; amount of honey harvested, 2,600 pounds to date. A few swarms may have escaped unseen.

A. J. BYERS.

HAMILTON, July 29, 1897.

I live within a stone's throw of the Dadant home farm. I have an apiary mainly in small hives, which numbered in the spring 4 colonies. I have had 9 swarms and not a single pound of surplus honey to date. I now have 10 colonies, all told. The large hives gave the largest swarms, but the small hives gave the largest number of swarms. I intend to run my bees by the Dadant methods next year, for I want less bees and more honey. JOHN HAMMON.

It is not necessary to give further arguments. Neither is there any secret about this success. Plenty of breeding-room at the opening of the crop, plenty of empty comb for the first rush of honey, plenty of ventilation, and as few drones as possible—those are the main requisites.

As a matter of course, those who run exclusively for comb honey will find more difficulty in keeping down the swarming, but if they have empty combs in sections from the previous year, to induce the bees to occupy the supers; if they use capacious supers and capacious brood-chambers; if they put the supers on before the opening of the crop; if they avoid the breeding of drones; and, above all, if they keep their bees comfortable by seeing that they are never suffering from the heat or from overcrowding, or from any difficulty in ventilating every part of their dwelling, they can to a great extent decrease swarming.

There is, in our opinion, but one incurable cause of swarming, that is, if the bees have a queen which for some reason they wish to supersede either from her decrease in fertility or from some defect. They then rear a number of queen-cells, and in a good season the queen goes forth with a swarm. But with young queens, in the circumstances above enumerated, but few swarms will come forth. At least, that is our experience, based upon a practice of nearly 40 years.

Hancock Co., Ill.

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Removing Comb Honey from the Hive.

BY A. B. MELLEN.

After the bees have made a really fine article of comb honey, it is often materially injured by the inexperienced bee-keeper in removing it from the hive and packing it in the shipping-cases. The first move in taking off honey is generally to smoke the bees. Smoke is all right, but please bear in mind that a little smoke will drive the bees, while too much only confuses them. I generally blow a little smoke on the alighting-board—just enough to divert the guards at the entrance of the hive—then remove the cover, and as I raise the painted cloth which covers the sections I blow smoke across the top of the sections (against the wind if there is any). This allows just enough cold smoke to drift into the sections to send the bees scampering below. Now, turn the super quickly on its edge, so that the wind will blow through the super from the top, as it is set on the hive, and, with a Coggshall's bee-brush, quickly brush the bees from the bottom of the super into the next one below, or into the hive. In this way nearly all of the bees will be gotten out of the super at the start. Now, pile the supers up six or eight high (if you have that many to take off at one time), and place a double-cone bee-escape on top of the pile; then just watch those six or eight different families of bees hustle each other out of those sections and make a bee-line for their own hive.

While the Porter bee-escape works very well on the hive, I prefer the above plan, as it saves one handling of the supers full of honey. Then, again, the honey is all piled in good shape to run into the honey-house at sundown. The cone escapes never get clogged with dead bees or propolis.

I have sometimes noticed a bee-keeper taking off comb honey—and he was old enough to know better—approach the hive and give the bees a drastic smoking at the entrance, thereby driving a large portion of the bees into the top super. Then he would yank off the hive-cover with a snap—a cloth on top of the sections was only a nuisance to him; then in went another deluge of smoke, among the white capping of the section honey. Next, off came the super of honey, just boiling full of bees. He then tried the "shake-out" process, generally accompanied with a sort of war-dance, with exclamations that sounded like "bad Injin" talk. The super would then be set up edgewise on the ground, while the nozzle of the smoker was applied to the openings on one side, while the bee-brush got in its work on the other side, and the apiarist (?) pumpt smoke through the nice, white honey, until it lookt, tasted and smelt as if it had been the very last thing rescued from a burning barn.

Late in the season the bees are loth to leave the sections, even after they have been piled up in the bee-yard for several hours; but if the supers can be left out over night the bees will either get out early in the morning or cluster in a few sections, when they can be lifted out and shaken on the ground, after which they will soon find their way home. All leaking or uncapt sections can be returned to the hive for the bees to finish during the working season, or packt as second class. If not filled well enough to sell they can be extracted, and used for "baits" next season. In fact, I try to have the bees draw foundation as late in the season as possible, in order to have a lot of drawn combs to start the next season with.

PACKING AND MARKETING HONEY.

While on this subject, under the good of the order, I might be permitted to say a few words about packing and marketing the honey. Since the advent of the deep-cell foundation, the cheerful idiot is again cavorting on his hobby of bogus comb honey, filled with glucose, sugar, syrup, etc., *ad nauseum*. Life is too short to make a personal matter of it with those chattering Jack-er-daws, and some of the honey is packt in such a slovenly manner as to justify the bees in disowning it. Therefore, to my mind, the best thing for a self-respecting comb-honey producer to do is to see that his honey is put up in proper shape, and then label each section, stating thereon that it contains "Pure Honey," and adding his name and address as a guarantee that it is the unmixt product of the bees. Section labels, printed in four colors, cost only 75 cents a thousand, and can be had for less in larger lots. This is only 7½ cents for labels enough to label 100 pounds of honey. To put them on rapidly, just brush the paste on the sections after they are all packt, then lay the labels on and smooth with a clean, dry cloth.

The middle-man generally does not like to see the sections labeled with the producer's name, but, under the existing circumstances, it seems necessary, and will not interfere with his calling in the least, for as long as we allow a few private individuals and corporations to own and control our money, we will be confronted with a restricted market and falling prices, which makes the middleman a necessity. And when we mount on that "wave of prosperity" (let her wave) we will need him just the same, for then the producer cannot afford to take the time to hunt the purchaser for his products.—Pacific Bee Journal.

The Horse—How to Break and Handle.—This is a pamphlet of 32 pages, giving complete instructions for breaking and educating colts, teaching horses to drive, and for use under the saddle, together with many instructions which have never before been publisht, and which are the result of the author's experience covering a period of 20 years. By Prof. Wm. Mullen, with whom the editor of the Bee Journal is personally acquainted. Price, postpaid, 20 cents; or given as a premium for sending us one new subscriber to the Bee Journal for the rest of the year at 50 cents.

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

Questions and Answers

CONDUCTED BY
DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Selling Sugar Syrup for Honey.

Some people that I know, are feeding their bees sugar syrup and selling it for comb honey. Is there any way to stop it? If so, how? There is more of this kind of fraud than I imagined, till I tried to sell some of my white clover honey put up in one-pound boxes in white cases. Some would say it is too nice; that they had bought some just like it that wasn't honey, and askt me if I fed my bees sugar to make it.

W. D. C.

ANSWER.—This is a matter for the United States Bee-Keepers' Union. Join that body if you have not already done so, and help it to put down all sorts of fraud against bee-keepers. But the suspicions of your customers are hardly positive proof that any one is getting combs of honey filled with sugar syrup.

Colony Tearing Foundation Out of the Sections.

I had a strong colony on which I placed a super of sections filled with full sheets of foundation, about July 15. The bees immediately tore out all the foundation, and even pasted a good deal of it all over the sections. There wasn't a bit left hanging.

1. Why did they do that?

2. What could I have done to prevent such tantalizing actions on the part of the bees? ALGONQUIN.

ANSWERS.—1. I don't know. Possibly there was something wrong with the foundation. Indeed, that's about the only guess I can make, providing there was a good flow of honey when the foundation was given them. I have known bees to gnaw out very thin foundatian if they were allowed to have it at a time when no honey was coming in.

2. If the trouble was with the foundation, of course the only remedy would be to give foundation to which the bees could make no objection.

Clipping Queens—Drone-Comb Foundation—Taking Off Honey.

1. I notice in Frank Benton's book, as publisht by the Government, that he advised clipping one wing of the queen one season, and the other the next season. Is this your practice?

2. I have had splendid success this year with my bees. I will average 100 pounds to the colony, spring count, but as I practice clipping my queens, and hiving on the old stand, I secure my largest crop from the current year's swarms, by hiving on starters. But I find that this practice gives me more drone-comb than I want. I have thought that this might be prevented if we had extra-thin foundation on the drone-cell order, and I use full sheets of this drone-comb foundation in the section-boxes, and inch starters of worker-foundation in the body. My question is this: Do you think this would be any advantage in lessening the amount of drone-comb built in the brood-nest? I believe that it would be best to use extra-thin drone-comb in the sections, as it would be less wax, and also a saving of time for the bees.

3. Is there any drone-comb foundation, extra-thin, made? If so, where?

4. You say you do not use bee-escapes. How do you get the bees out of the supers? ARKANSAS.

ANSWERS.—1. No, my queens are generally all clipt alike, the two wings on the left side being taken off. For those who keep no record of their queens, there would be an advantage in clipping differently in alternating years. To make the advantage very great, however, it would be necessary to replace all queens before they are three years old, if not before they are two. For you would clip a queen this year in June, just the same as you clipt one 22 or 24 months older. Father Langstroth, I think it was, who suggested the plan of clipping one of the large wings of a queen upon first commencing to lay, a year later clipping another wing, and the following year a third, and perhaps a fourth a year later.

There is no necessity for my clipping differently in different years, for my record book, which always goes with me to the apiary, shows at a glance the age of every queen. If I depended only upon the looks of the wings, I would have to find the queen herself to know her age, instead of merely glancing at the book. I clip the left wings simply because it is more convenient.

2. I doubt whether drone-foundation in the supers would prevent the building of drone-comb in the brood-nest. At the time of the honey harvest there are two things that will secure worker-comb in the brood-nest, the first being very weak colonies, and the second full frames of worker foundation. As we don't want the first, we are practically shut up to the last. Supposing that we had drone-foundation in the supers and worker-comb in the brood-nest, there will come a demand for drone-brood, and no drone-comb being in the brood-nest, the queen will go up and lay in the supers. She may be prevented from this by a queen-excluder, but in that case the workers will hold some drone-cells vacant in the sections, waiting for the queen to lay in them. I very much doubt whether you will like drone-combs in supers, and advise you to try it on a very small scale.

3. I don't know whether drone-foundation is now made, altho formerly I think it was. At any rate I had foundation from A. I. Root that was a compromise between drone and worker, but it was not found desirable, and probably is not now made.

4. Altho I do not depend upon bee-escapes to clear the supers of bees, I do to some extent call on them for aid. When a super is to be taken off, I generally want it to be taken into the house the same day, and sometimes it must be taken from the apiary within an hour, so there is no time to wait for the sole operation of a bee-escape. The cover is taken off, and a flood of smoke administered for a few seconds, and as soon as a large part of the bees have gone out of the super it is taken off and put in a pile with others till the pile contains 10 or 12 supers. At the bottom of the pile is a reversible bottom-board with a Lareese escape on it, thus allowing any bees that so desire to get out at the bottom, and at the top is an escape that has not yet been christened, being a sort of cone escape attached to a robber-cloth. A robber-cloth is simply a cloth large enough to more than cover the super, having lath fastened at two opposite sides, so you readily take hold of one of the lath and with one hand throw the robber-cloth over the super. The cone is a three-sided affair, made of common wire-cloth, each side being an equilateral triangle with sides 8 or 10 inches long, and being placed centrally over the robber-cloth is sewed there, and the robber-cloth of course cut open so the bees can get up through. With a chance for exit at both bottom and top, the supers will be well emptied in the course of a few hours, but sometimes at an out-apiary it may happen that a super just taken off is to be taken home right away, so it is taken from the hive set on end, and the bees all driven out with smoke. When the flow of honey is heavy, sometimes it is safe to let the supers stand on the hives, that is, on the hive-covers after the hives are covered, till the bees have all come out of their own accord; but a sharp eye must be out for robbers.

Hiving Swarms—Robber Bees.

1. In hiving a swarm of bees that has settled say ¼ of a mile from the original hive, and then moving the hive some distance from the settling place, what becomes of the bees that are left around the place where they settled?

2. What will keep robber-bees away, and what can be done with them? R. T. B.

Answers.—1. Very likely they would return to their old home, unless the removal was made some days after the swarming, in which case a cluster might remain at the place of settling until they dwindled away.

2. You can't keep robbers from coming around your hives, but you can do something toward preventing their entrance. Contract the entrance, but not so much as to smother the colony in a hot day. A robber likes to have a clear course, so if you do anything to make a crooked passage into a hive, it will be a help against robbers. One way is to have the entrance of the hive closed entirely except a place at one end large enough for one or two bees at a time, having a frame or two left out of that side of the hive, and a division-board or dummy closing up the frames. The robbers don't like to run the gauntlet through this vacant space and under the division-board. But the best protection against robbers is a good, strong colony, so manage not to have any weak or queenless colonies. Sometimes giving a queen to a colony will give it heart to protect itself. If robbers have got a fair start they may sometimes be stopt by piling hay or straw loosely as high as the hive all around it, then keeping it well wet with water. The bees of the colony will crawl through the wet mass, but the robbers don't like to take the risk.

A Question on Queen-Rearing.

In a text-book on bees that I have, it says that a queen reared in a hive after the old queen and field-bees have been taken away, is not reared under favorable conditions, and should be killed. Why is she not as good as one reared in some other way? The reason I ask is, that I have a queen reared in that way, and as far as I can see she is all right, for she keeps the brood-combs full of eggs and brood all the time. W. W. L.

Answer.—I don't know that I can tell all about the why, but it is well known that a queen reared in a weak nucleus at a time when forage is scarce is not as good as a queen reared in a strong colony during the honey harvest. If the field-bees are all taken away, no honey is coming in, and the young queen-larva may not be so bountifully fed. Still, if everything else is favorable, a good queen may be reared after the removal of the field-bees. For example, take from a strong colony its queen and remove the colony to a new stand, setting colony number two in its place, and all the field-bees will go to number two, leaving number one queenless and without field-bees. Colony number one will rear good queens, but I think they might be a little better if the removal had not been made till after the queen-cells were sealed.

Wintering—Yellow Bees—Carniolans.

1. I would like to have you tell why my bees died, and left plenty of stores. I think it was ventilation. I lost 8 colonies in wintering, and only one survived the cold, late spring. I lost 10 in all. I have a building 20x10 feet, shut up dark, and with shutters in front. Would it be better to let them have an entrance on the south side all winter, as the sun shines warm on the front of the hives. Will they come out and get chilled?

2. Are the yellow bees as hardy as the 3-banded? Which strain do you think is best for our northern States?

3. Are the Carniolan bees gray or yellow, or both? H. N. L.

Answers.—1. It isn't easy to say just what was the trouble. Ventilation may and may not have been all right. But as a rule bees do not winter well in buildings above ground, altho some winter well in house-apiaries specially constructed. With a south entrance they might do better, but there might be times with a dazzling snow when they would be better not to be out. Perhaps wintering in the cellar is the right plan for you. At any rate you might try part of your bees that way.

2. Bees with more than three yellow bands are not reported as differing generally from others in hardiness, altho I believe some say they have proved less hardy.

3. Carniolan bees are gray. There are bees that are called yellow Carniolans, said to be developt in this country from gray Carniolans, but some say they have an admixture of other blood.

Encyclopedia for Beeswax.—Some time ago we offered a splendid work of eight large volumes, called "The New Standard American Encyclopedia," having nearly 4,000 pages, and over 300 colored maps, charts, and diagrams. Size of volume, 2 inches thick, 8½ wide, and 11½ long. As per that offer, last publisht on page 186, the eight volumes were offered by freight for only $19 cash. We can furnish a set or two at that price, bound in half morroco; or will exchange a set for 75 pounds of yellow beeswax, delivered at our office. You would be more than satisfied with the Encyclopedia, and a set of such books ought to be in every family for reference.

The American Bee Journal
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Next Annual Meeting at Buffalo, N. Y., Aug. 24–26, 1897.

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Editorial Comments.

About 14,000 Copies of this number of the Bee Journal were printed—many of them to be used as sample copies. We trust that each one who receives a copy will be glad to send the 25 cents for the last four months of this year, if not already a regular subscriber. And should any one receive two copies, we will consider it a favor if the extra one is handed to some bee-keeping friend who perhaps might be glad to read it and also subscribe.

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The Buffalo Convention will be nearly over while our thousands of readers are perusing this number of the Bee Journal. The long-lookt-for and much-talkt-of annual national meeting of bee-keepers in Buffalo will soon be a matter of history. Let us hope that it may be but the beginning of better things for bee-keepers—the beginning of the end of honey-adulteration, dishonest, defrauding commission-men, and all that prey upon the deserving producers of the genuine article of honey.

We expect within a week or two, to begin the publication of the full report of the proceedings of the Buffalo convention in these columns. Look out for something good.

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The Market for Honey.—On this very important subject, Gleanings for Aug. 15 gives the following paragraphs:

> Altho still early for selling honey, there is a fair demand, and prices seem to be pretty well maintained, and choice honey is already finding rea ly sale. Later reports show that, in many sections, the crop will be much less than at first anticipated. In the northern New England States there seems to have been very little honey gathered; likewise in Minnesota, owing to cool weather and rains, very little honey has been gathered from the white clover bloom, which was very abundant. In Michigan the yield from willow-herb seems to be cut short. With abundant farm crops and fairly good prices; with the starting up of so many industries that have been dormant or working on short time during the past three or four years, the demand for honey should be so improved that as good or even better prices should be realized than last year. If bee-keepers who have plenty of honey will not make the mistake of rushing it off to the large cities into the hands of irresponsible commission houses, but will, instead, develop their home market to the fullest extent, there will be hope for improved prices for honey instead of lower. If Americans generally consumed as much honey as they do in Europe, there would be demand enough for a full crop of honey.
>
> Make sure that the consumer gets pure honey; and to help toward that end, join the United States Bee-Keepers' Union, paying your fee of $1.00, and thus furnish the sinews of war for the prosecution of those unscrupulous firms and individuals who palm off upon the unsuspecting public a mixture consisting chiefly of glucose, but under the name of pure honey. Such stuff does a great deal more harm to the honey-business, by blunting and destroying the taste for honey, than in any other way. If people can get *pure* honey they will continue to eat it, while they will not continue so readily to eat the mixt stuff.
>
> Send your membership fee to Dr. A. B. Mason, Sta. B, Toledo, Ohio......Let the list of members roll up to large proportions, so that the officers may soon have a fund with which to begin aggressive work.

Just two things we wish to emphasize in the foregoing, viz.: Develop your home honey market thoroughly, and also become a member of the United States Bee-Keepers' Union. It will pay to follow these two suggestions. If more convenient, as we have so often said before, send your membership fee to the Bee Journal office, and we will forward it to the proper place, when a receipt will be mailed you.

◆

Clipping the Queen's Wings.—Mr. G. M. Doolittle, in an article on "Clipt Queens and Swarming," in the American Bee-Keeper, says: "I consider the clipping of the queen's wings one of the improvements of the age, scarcely second to any of the many others made within the past half a century."

◆

Place to Keep Comb Honey.—Editor Abbott, of the Busy Bee, gives the following good advice as to keeping comb honey: "Keep your comb honey in a dry, warm place. Do not put it in the ice chest, nor in the cellar. There is not a cellar in the United States that is so dry that it will not injure the flavor of comb honey if kept in it. Better by far put it in the garret, as it is sure to be dry and warm there for some time."

◆

Importance of Shading Hives.—Mr. Chas. H. Thies, in the August American Bee-Keeper, writes thus on shading hives: "All my hives that are exposed to the rays of the sun any portion of the day are covered with shading-boards, which are raised an inch or two from the top of the hive-cover. This is not only of benefit to the bees, but to the bee-keeper as well, as I find when thus protected they do not cluster on the outside of the hive to such an extent, but remain out in the field at work."

◆

Honey-Salve is recommended by Dr. Kneipp as an excellent dressing for sores and boils, says a "straw" in Gleanings. Take equal parts honey and flour, add a little water, and stir thoroughly together. Don't make too thin.

◆

Cyprians, Syrians, and Holylands.—A writer in the Southland Queen gives the following description of these races of bees, the italics being ours:

> THE CYPRIANS are natives of the island of Cypress, whence their name. They are a yellow race of bees with few exceptions. The bees and queens are slender, somewhat smaller than the Italian. They nearly always have a yellow shield just behind the wings; are quick upon the wing; very strong, excellent honey-gatherers; winter well, and are, as a rule, proof against robber-bees.
>
> THE SYRIANS are found in that portion of Asiatic Turkey which lies north of Mount Carmel. They are about the same size as the Cyprians, and their qualities are about the same. Their disposition is also much like the Cyprians, and differ very slightly from them in appearance, being a little more yellow when first imported, but when bred in this country for awhile no one will, as a rule, be able to make a distinction between the two. For a few generations they are grayer, or have more of an ash color than the Cyprians.
>
> THE HOLYLANDS, or, as the natives call them, "Holy" bees, are found in Palestine south of Mount Carmel. They are markt somewhat like the Cyprians, but their hair is so light at first, or when first imported, and for three or four generations they appear to be beautifully striped. Their size and shape is much like

the other races above. They are very active, and fly far in quest of food, being the best bee for this country we have as yet tried.

Now, taking it all and all, we are yet standing to our old statement, that *the three races of bees given above are practically and identically the same*, with a little off color on account of different localities. The pure Italians are quite different when bred in this country awhile. We are aware that most of the bee-world is against us on these points, but when this matter is sifted down as it ought to be, *the three races as above will be found to be one and the same.*

The writer of the above has advertised *Cyprian* queens within the past year, but after reading the foregoing, how many will believe they got genuine Cyprian queens when they ordered and paid for them? How can they be sure they didn't get Syrians or Holylands? Pretty slick way of advertising, wasn't it? We paid a dollar for a Cyprian queen, and as they are "practically and identically the same," why, of course, just as like as not a Syrian or Holyland queen was sent us. And if they are "one and the same," it was just possible the advertiser never had a real Cyprian queen on the plantation. Yet, some of the bees reared from those "Cyprian" queens were on exhibition at the Fairs last fall, and took the first premium! Pretty good joke, eh?

Just give some folks rope enough, and they'll hang themselves. It was very unfortunate for that advertiser, that he said those three races of bees were "practically and identically the same."

* * *

New Union and Bee-Keepers' Rights.—We have just received this letter from a member of the Old Union:

> SAUK COUNTY, Wis., Aug. 18, 1897.
>
> MR. YORK:—It looks as if the United States Bee-Keepers' Union means business, to try to get pure food laws past so that if an adulterator of honey is taken up, we won't lose the suit and have to pay the cost besides. That law in Illinois alone ought to bring 200 to 300 members to the New Union.
>
> Now, if there was only a little place in the New Constitution to protect bee-keepers in their rights, a great many more would join.
>
> Enclosed please find my $1.00 membership fee.
>
> Yours truly, J. J. OCHSNER.

If Mr. Ochsner will turn to page 538 of this number of the Bee Journal, and read "Art. II—Objects," he will find just what he was wishing was in the New Constitution, viz.: "to defend them in their lawful rights." With the exception of a few minor details, that Constitution is *all right*—it covers everything needful. There has been scarcely a criticism of it that is worth noticing. The principal thing needed now is to roll up a big membership and full treasury, so that General Manager Secor can get to work. And that is just what we have been trying to do the past year, rather than offering useless criticisms, as some have done.

No one ever claimed that the New Constitution is perfection, but those who know do claim that it is built to do the work needed by bee-keepers, and it will do it as soon as there is the necessary power behind it. Constitutions are not automatic.

The Weekly Budget.

MR. B. S. K. BENNETT, of Los Angeles Co., Calif., and editor of the Pacific Bee Journal, gave us a call Aug. 20, when on his way to attend the Buffalo convention, and also to visit in the East. He places the honey crop of California this year at 350 carloads. Too bad they can't eat it all out there!

MESSRS. CHAS. DADANT & SON—the big comb foundation makers—dropt in on us when on their way to Sturgeon Bay, Wis., to spend a short time in resting after a busy season. We regretted being out of our office when they called, for we always want to see those two excellent bee-men whenever possible.

MR. W. J. PICKARD, of Richland Co., Wis., made us a very pleasant call Aug. 11. Mrs. Pickard is the bee-keeper(ess) of the family, and has in former years produced wonderful crops of honey. But this year's crop was only about half that of other years, being 18,000 pounds from 220 colonies. The basswood in their locality, as in some others, was a failure this year. Mrs. Pickard is perhaps the most extensive lady honey-producer in the world. Consequently Mr. Pickard should be the possessor of a very sweet wife.

MR. LOUIS DADANT, son of Mr. C. P. Dadant, and grandson of Mr. Chas. Dadant, recently visited The A. I. Root Company in Ohio. We have not seen "Louis" since the World's Fair convention. He seems to be following faithfully in the footsteps of his famous fathers in foundation making and bee-keeping. We hope he will be as successful as they.

MR. THOMAS G. NEWMAN—General Manager of the National Bee-Keepers' Union—in a letter received just before this number of the Bee Journal goes to press, writes that he will not be able to attend the Buffalo convention of the United States Bee-Keepers' Union. He had been sick the previous 10 days before writing, and in bed much of the time. It seems the climate of San Francisco does not agree with his constitution.

MR. JOS. NYSEWANDER, of Iowa—one of the largest bee-supply dealers of the West—called on us Aug. 14. He had been to Ohio to attend the funeral of his father. Mr. N. is comparatively a young man, and a hustler for business. Tho we saw him for the first time, and but for about a minute, when passing through his city on our way to the Lincoln convention last October, yet we remembered and recognized his smiling countenance when he called.

MR. FRED S. THORINGTON, of Livingston Co., Mo., speaking of the prospects for a fall honey crop in his locality, said this in the August Progressive Bee-Keeper:

> "We have not had a finer prospect for fall forage for bees in many years than there is at the present time. The roadsides are lined with Spanish-needle that will soon burst its closed buds, and unfold pretty bloom to the busy bees. Then, too, the buck-bush will soon be in bloom, as well as other fall flowers, while the pretty golden-rod, not wishing to bloom unseen, is growing in profusion, to shed its fragrance and beauty in the coming autumn."

MR. R. B. LEAHY, of the Progressive Bee-Keeper, has been travelling around "down east," visiting the home of his childhood, talking to Sunday-school children, etc. It's wonderful how some supply dealers get over the earth, and also get a good share of the earth itself—occasionally. Now, there's Mr. Calvert, of The A. I. Root Company, who recently went clear to the Pacific; and Mr. Leahy has been away off to the Atlantic. If *we* were a rich supply dealer, we'd be apt to go to—well, now, where would we go to? Perhaps to old "Hingland." But as it is, if some one will just "Put us off at Buffalo," this week, we'll try. to be satisfied for the present.

MR. JAS. A. STONE, of Sangamon Co., Ill., Secretary of the Illinois State Bee-Keepers' Association, writing us Aug. 13, said:

> DEAR BRO. YORK:—I see in the American Bee Journal for Aug. 12, under heading, "The Illinois Pure-Food Law," what I take to be nearly as good as the law we tried to get through. I had not read the law through, and did not know we had anything in it. I enclose $1.00 for membership in our New Union in the hope that we may be able to use it as Mr. Dadant suggests. I would be glad if I could go to the Buffalo meeting, but I think I have too much work to do.

We are glad to get and forward Mr. Stone's dollar for membership fee in "our New Union." When bee-keepers come to look at it as does Mr. Stone, more of them will send on their dollars to help in the good wook of "our [their] New Union." We hope that by the time the Buffalo meeting closes there will be funds enough in the treasury to begin the enforcement of some of our present laws against the adulteration of honey.

MR. L. W. TRUMBULL is one of the newer bee-keepers, living 17 miles south of Chicago. We went to see him and his apiary Saturday, Aug. 14. upon his kind invitation. Mr. T. began just last spring, with 14 colonies. He has now 25 colonies, and about 500 pounds of fine comb honey. He feels that he has made a successful start. And he has.

Mr. Trumbull lives on a farm of 260 acres, for which he pays an annual rental of $1,400. He has three men working for him the year around. It is known as the "Pullman Dairy Farm," and has upon it 40 cows, which yield an income of about $10 per day. We can testify to the excellent drinking qualities of the milk Num, num! But it *ought* to be *rich*, when the grass or feed producing it grows on a farm worth about $2,000 per acre!

Mr. Trumbull is president of the school board where he lives, and takes a lively interest in all going on in the town near which he lives. He took us in his carriage, behind a large, splendid sorrel roadster, to call upon two neighbor bee-keepers. It was a very pleasant two hours that we spent in Mr. Trumbull's company. Going again, sometime.

The United States Bee-Keepers' Union

CONSTITUTION IN FULL.

ARTICLE I.—Name.

This organization shall be known as the United States Bee-Keepers' Union.

ARTICLE II.—Objects.

Its objects shall be to promote and protect the interests of its members; to defend them in their lawful rights; to enforce laws against the adulteration of honey; to prosecute dishonest honey commission-men; and to advance the pursuit of bee-culture in general.

ARTICLE III.—Membership.

Sec. 1.—Any person may become a member upon the payment of a membership fee of one dollar annually to the Secretary or General Manager on or before the first day of January of each year, except as provided in Section 8 of Article VI of this Constitution.

ARTICLE IV.—Officers.

Sec. 1.—The officers of this Union shall be a President, a Vice-President, a Secretary and a Board of Directors which shall consist of a General Manager and six Directors, whose terms of office shall be for one year, or until their successors are elected and qualified; and the Director, aside from the General Manager, receiving the largest number of votes shall be chairman of the Board of Directors.

ARTICLE V.—Election of Officers.

Sec. 1.—The President, Vice-President, and Secretary shall be elected by ballot by a majority of the members present at each annual meeting of the Union, and shall constitute the Executive Committee.

Sec. 2.—The General Manager and the Board of Directors shall be elected by ballot during the month of December of each year by a majority of the members voting; blank Postal Card ballots for this purpose, accompanied by a full list of the membership, shall be mailed to each member by the General Manager; and said ballots shall be returned to a committee of two members, who shall be appointed by the Executive Committee, whose names and postoffice address shall be sent to the General Manager by said Executive Committee on or before the 15th of the November preceding the election. Said committee of two shall count the ballots and certify the result to the General Manager during the first week in January.

ARTICLE VI.—Duties of Officers.

Sec. 1.—*President*—It shall be the duty of the President to preside at the annual meeting of the Union; and to perform such other duties as may devolve upon the presiding officer.

Sec. 2.—*Vice-President*—In the absence of the President the Vice-President shall perform the duties of President.

Sec. 3.—*Secretary*—It shall be the duty of the Secretary to keep a record of the proceedings of the annual meeting; to receive membership fees; to furnish the General Manager with the names and postoffice address of those who become members at the annual meeting; to pay to the Treasurer of the Union all moneys left in his hands after paying the expenses of the annual meeting; and to perform such other duties as may be required of him by the Union; and he shall receive such sum for his services, not exceeding $25, as may be granted by the Board of Directors.

Sec. 4.—*General Manager*—The General Manager shall be Secretary of the Board of Directors, and shall keep a list of the names of members with their postoffice address; receive membership fees, and be Treasurer of this Union. He shall give a bond in such amount, and with such conditions as may be required and approved by the Board of Directors, for the faithful performance of his duties, and perform such other services as may be required of him by the Board of Directors, or by this Constitution.

Sec. 5.—At the time of sending the ballots to the members for the annual election of the Board of Directors, he shall also send to each member a statement of the financial condition of the Union, and a report of the work done by said Board of Directors.

Sec. 6.—The Board of Directors shall pay the General Manager such sum for his services as said Board may deem proper, but not to exceed 20 per cent. of the receipts of the Union. Said Board shall meet at such time and place as it may decide upon.

Sec. 7.—*Board of Directors*—The Board of Directors shall determine what course shall be taken by the Union upon any matter presented to it for consideration, that does not conflict with this Constitution; and cause such extra, but equal, assessments to be made on each member as may become necessary, giving the reason to each member why such assessment is required; provided that not more than one assessment shall be made in any one year, and not to an amount exceeding the annual membership fee, without a majority vote of all the members of the Union.

Sec. 8.—Any member refusing, or neglecting, to pay said assessment as required by the Board of Directors shall forfeit his membership, and his right to become a member of the Union for one year after said assessment becomes due.

ARTICLE VII.—Funds.

Sec. 1.—The funds of this Union may be used for any purpose that the Board of Directors may consider for the interest of its members, and for the advancement of the pursuit of bee-culture.

ARTICLE VIII.—Vacancies.

Any vacancy occurring in the Board of Directors may be filled by the Executive Committee; and any vacancy occurring in the Executive Committee shall be filled by the Board of Directors.

ARTICLE IX.—Meetings.

This Union shall hold annual meetings at such time and place as shall be agreed upon by the Executive Committee, who shall give at least 60 days' notice in the bee-periodicals, of the time and place of meeting.

ARTICLE X.—Amendments.

This Constitution may be altered or amended by a majority vote of all the members, provided notice of said alteration or amendment has been given at a previous annual meeting.

The World's Honey Markets.—The New York Tribune recently contained the following paragraphs:

> The honey trade in this country has grown to great proportions, for honey has ceast to be a great luxury. It forms part of the grocer's stock in trade in the smallest hamlet, and bakers and candy-makers and patent medicine men use it in large quantities. There are several firms in New York who regard an order of $1,000, $1,500 or $2,000 worth just as a dry-goods merchant looks on an order for 50 yards of muslin. New York, Boston and Chicago are the centers of the trade in this country, and London rules the world.
>
> The supply is steady, for if there is a shortage in one part of the country, another part is sure to make it up. There is no use in attempting to make an estimate of the crop, but it will go well into the millions. It is known that there are 30,000 bee-keepers in the United States, and many who are unknown.
>
> Honey comes to New York from all parts of the country, but California and the northern States supply the greater part. The southern States do not furnish as much as would be expected, partly because people are not paying attention to the work, and partly because bees are not cared for as wel as at the North.

Perhaps another 0 should be added to the number of bee-keepers in the United States. We think 300,000 would be nearer the truth.

◆

Back Numbers Since Jan. 1.—We are able to supply complete sets of the Bee Journal since Jan. 1, 1897, to any who may desire, at two cents per copy. There are a number of new readers who perhaps would like to get some of the first numbers of this year, to complete their volume for 1897. We shall be glad to furnish them as long as they last, at two cents each.

◆

The Names and Addresses of all your bee-friends, who are not now taking the Bee Journal, are wanted at this office. Send them in, please, when sample copies will be mailed to them. Then you can secure their subscriptions, and earn some of the premiums we have offered. The next few months will be just the time to easily get new subscribers. Try it earnestly, at least.

BEE-BOOKS

SENT POSTPAID BY

George W. York & Co.,

Chicago, Ills.

Bees and Honey, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages, and 245 illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold-lettered. Price, $1.00.

Langstroth on the Honey-Bee, revised by Dadant—This classic in bee-culture, has been entirely re-written, and is fully illustrated. It treats of everything relating to bees and bee-keeping. No apiarian library is complete without this standard work by Rev. L. L. Langstroth—the Father of American Bee-Culture. It has 520 pages; bound in cloth.

Price, postpaid, $1.25.

Bee-Keepers' Guide, or Manual of the Apiary, by Prof A. J Cook, of the Michigan Agricultural College.—This book is not only instructive and helpful as a guide in bee-keeping, but is interesting and thoroughly practical and scientific. It contains a full delineation of the anatomy and physiology of bees. 460 pages; bound in cloth and fully illustrated.

Price, postpaid, $1.25.

Scientific Queen-Rearing, as Practically Applied, by G. M. Doolittle.—A method by which the very best of Queen-Bees are reared in perfect accord with Nature's way. 176 pages, bound in cloth, and illustrated. Price, $1.00.

A B C of Bee-Culture, by A. I. Root.—A cyclopædia of 400 pages, describing everything pertaining to the care of the honey-bees. It contains 300 engravings. It was written especially for beginners Bound in cloth. Price, $1.25.

Advanced Bee-Culture, Its Methods and Management, by W Z. Hutchinson.—The author of this work is too well known to need further description of his book. He is a practical and entertaining writer. You should read his book. 90 pages, bound in paper, and illustrated. Price, 50 cts.

Rational Bee-Keeping, by Dr. John Dzierzon—This is a translation of his latest German book on bee-culture. It has 350 pages; bound in paper covers, $1.00

Bienen-Kultur, by Thomas G. Newman.—This is a German translation of the principal portion of the book called BEES OF HONEY. 100 page pamphlet. Price, 40 cents.

Convention Hand-Book, for Bee-Keepers, Thomas G. Newman.—It contains the parliamentary law and rules of order for Bee-Conventions—also Constitution and By-Laws, with subjects for discussion, etc. Cloth, gold-lettered. Price, 25 cts.

Thirty Years Among the Bees, by Henry Alley.—Gives the results of over a quarter-century's experience in rearing queen-bees. Very latest work of the kind. Nearly 100 pages. Price, 50c.

Why Eat Honey?—This Leaflet is intended for FREE distribution, to create a Local Market. 100 copies, by mail, 30 cts.; 500 for $1.25; 1000, $2.00.

How to Keep Honey and preserve its richness and flavor. Price same as Why Eat Honey.

Alsike Clover Leaflet.—Full directions for growing. 50 for 25 cts.; 100 for 40 cts.; 200, 70c.

Apiary Register, by Thos. G. Newman.—Devotes two pages to a colony. Leather binding. Price, for 50 colonies, $1.00; for 100 colonies, $1.25.

Preparation of Honey for the Market, including the production and care of comb and extracted honey. A chapter from BEES AND HONEY. Price, 10 cents

Bee-Pasturage a Necessity.—This book suggests what and how to plant It is a chapter from BEES AND HONEY. Price, 10 cents.

The Hive I Use, by G. M. Doolittle. It details his management of bees, and methods of producing comb honey. Price, 5 cents.

Dr. Howard's Book on Foul Brood.—Gives the McEvoy Treatment and reviews the experiments of others. Price, 25 cts.

Silo and Silage, by Prof. A J. Cook.—It gives the method in operation at the Michigan Agricultural College. Price, 25 cts.

Winter Problem in Bee-Keeping, by G. R. Pierce. Result of 25 years' experience. 30 cts.

Handling Bees, by Chas. Dadant & Son.—A Chapter from Langstroth Revised. Price, 8 cts.

History of Bee-Associations, and Brief Reports of the first 20 conventions. Price

Foul Brood Treatment, by Prof. F. R. Cheshire.—Its Cause and Prevention. Price, 10 cts.

Foul Brood, by A. R. Kohnke.—Origin, Development and Cure. Price 10 cts.

Practical Hints to Bee-Kee-Keepers—by CHAS. F. MUTH. Also contains a Foul Brood Cure and How to Winter Bees. 40 p.; 10 cts.

Bee-Keeping for Profit, by Dr. G. L. Tinker.—Revised and enlarged. It details the author's "new system, or how to get the largest yields of comb or extracted honey." 80 p.; illustrated. 25c.

Emerson Binders, made especially for the BEE JOURNAL, are convenient for preserving each number as fast as received. Not mailable to Canada. Price, 75 cts.

Commercial Calculator, by C. Ropp.—A ready Calculator, Business Arithmetic and Account-Book combined in one. Every farmer and business man should have it. No. 1, bound in water proof leatherette, calf finish. Price, 40 cts. No. 2 in fine artificial leather, with pocket, silicate slate, and account-book. Price, 60 cts.

Green's Four Books, by Chas. A. Green.—Devoted to, 1st, How We Made the Old Farm Pay; 2nd, Peach Culture; 3rd, How to Propagate Fruit-Plants, Vines and Trees; 4th, General Fruit Instructor. Nearly 120 pages. Fully illustrated. 25 cts.

Garden and Orchard, by Chas. A. Green.—Gives full instructions in Thinning and Marketing Fruits; Pruning, Planting and Cultivating; Spraying, Evaporation, Cold Storage, Etc. 94 pages, illustrated. Price, 25 cts.

Kendall's Horse-Book.—35 pictures, showing positions of sick horses, and treats on all their diseases. English or German. Price, 25 cts.

Lumber and Log-Book.—Gives measurements of lumber, logs planks; wages, etc. 25c.

Maple Sugar and the Sugar Bush, by Prof. A. J. Cook.—Full instructions. Price, 35 cts.

Grain Tables, for casting up the price of grain, produce, hay, etc. Price, 25 cts.

Capons and Caponizing, by Dr. Sawyer, Fanny Field, and others.—Illustrated. All about caponizing fowls, and thus how to make the most money in poultry-raising. 64 pages. Price, 30 cts.

Our Poultry Doctor, or Health in the Poultry Yard and How to Cure Sick Fowls, by Fanny Field,—Everything about Poultry Diseases and their Cure. 64 pages. Price, 30 cts.

Poultry for Market and Poultry for Profit, by Fanny Field.—Tells everything about the Poultry Business. 64 pages. Price, 25 cts.

Turkeys for Market and Turkeys for Profit, by Fanny Field.—All about Turkey-Raising. 64 pages. Price, 25 cts.

Rural Life.—Bees, Poultry, Fruits, Vegetables, and Household Matters. 100 pages. 25 cts.

Potato Culture, by T. B. Terry.—It tells how to grow them profitably. Price, 40 cts.

Hand-Book of Health, by Dr. Foote.—Hints about eating, drinking, etc. Price, 25 cts.

Bee-Keepers' Directory, by H. Alley.—Latest methods in Queen-Rearing, etc. Price, 50c.

Book Clubbing Offers.

(Read Carefully.)

The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only ONE book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted, see postpaid prices given with the description of the books on this page. Following is the clubbing-list:

1.	Langstroth on the Honey-Bee	$2.00
2.	A B C of Bee-Culture	2.00
3.	Bee-Keeper's Guide	1.75
4.	Bees and Honey [Cloth bound]	1.65
5.	Doolittle's Scientific Queen-Rearing	1.75
6.	Dr. Howard's Foul Brood Book	1.10
7.	Advanced Bee-Culture	1.30
9.	Bienen-Kultur [German]	1.20
11.	Rational Bee-Keeping [Paper bound]	1.75
12.	Thirty Years Among the Bees	1.30
13.	Bee-Keeping for Profit	1.15
14.	Convention Hand Book	1.15
15.	Poultry for Market and Profit	1.10
16.	Turkeys for Market and Profit	1.10
17.	Capons and Caponizing	1.10
18.	Our Poultry Doctor	1.10
19.	Green's Four Books	1.15
21.	Garden and Orchard	1.15
23.	Rural Life	1.10
24.	Emerson Binder for the Bee Journal	1.60
25.	Commercial Calculator, No. 1	1.25
26.	Commercial Calculator, No. 2	1.40
27.	Kendall's Horse-Book	1.10
30.	Potato Culture	1.20
32.	Hand-Book of Health	1.10
33.	Dictionary of Apiculture	1.35
34.	Maple Sugar and the Sugar Bush	1.20
35.	Silo and Silage	1.10
36.	Winter Problem in Bee-Keeping	1.30
37.	Apiary Register (for 50 colonies)	1.75
38.	Apiary Register (for 100 colonies)	2.00
39.	Bee-Keepers' Directory	1.30

Muth's HONEY-EXTRACTOR Square Glass Jars.

Root's Goods at Root's Prices.

BEE-KEEPERS' SUPPLIES in general, etc etc
Send for our new catalog.
"Practical Hints" will be mailed for 10c. in stamps. Apply to—

Chas. F. Muth & Son, Cincinnati, Ohio.

Please mention Bee Journal when writing.

Honey - Clovers!

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5℔	10℔	25℔	50℔
Alsike Clover	.70	$1.25	$3.00	$5.75
Sweet Clover (white)	.60	1.00	2.25	4.00
White Clover	.90	1.60	3.75	7.00
Alfalfa Clover	.60	1.00	2.25	4.00
Crimson Clover	.55	.90	2.00	3.50

Prices subject to market changes.

Add 25 cents to your order, for cartage, if wanted by freight.

Your orders are solicited.

GEORGE W. YORK & Co.
CHICAGO, ILL.

Please mention Bee Journal when writing.

ITALIAN QUEENS

"Good Yellow Ones"—60c each; 6 for $3.00.

1-LB. HONEY-JARS $1.50 per gross.

Catalog of Apiarian Supplies free.

I. J. STRINGHAM,
105 Park Place. NEW YORK, N. Y.
APIARY—Glen Cove, L. I.

Please mention Bee Journal when writing.

Tested Adel Queens

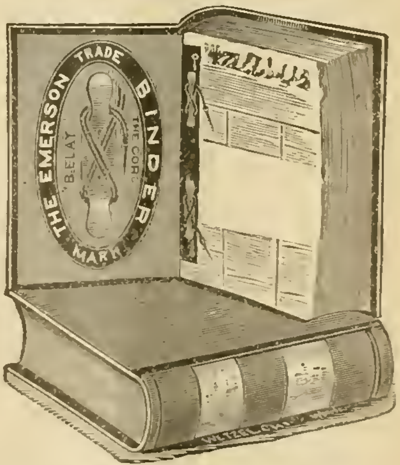
50 CENTS EACH

My new [1897] book on Queen-Rearing will give a method for rearing Queens in the brood-chamber while the queen is present. Mailed free to all who purchase Queens.

H. ALLEY,
Wenham, Mass.

32A4

Please mention Bee Journal when writing.



We have a few of these Emerson stiff cloth-board binders for the American Bee Journal. They make a splendid permanent binding, and hold a full year's numbers. The old price was 75 cts., postpaid, but we will mail you one for **only 60 cts.**, or with the Bee Journal for one year—both together for $1.50.

Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Fertilization of Queens in Confinement.

Query 58.—Do you believe that fertilization of queens in confinement can be successfully and economically accomplisht? If not, why not? For my part, I believe that it can be accomplisht; also that it can be done in accordance with Mr. Doolittle's specifications as given in his book.—J. A.

J. A. Green—No.

Jas. A. Stone—I don't know anything about it.

Emerson T. Abbott—No. They are not "built that way."

H. D. Cutting—Time will tell. We are living in a progressive age.

J. M. Hambaugh—I think not. And why? Because it is not according to Nature.

Mrs. L. Harrison—There is neither sense nor economy in working against Nature.

Dr. C. C. Miller—I think not, with our present knowledge, but I don't despair of the future.

Eugene Secor—I'd like to see it done, and I'll believe it *can* be done when I know it *is* done.

A. F. Brown—I do not think it will ever be accomplisht with any degree of practical success.

Chas. Dadant & Son—We do not believe fertilization in confinement will ever be achieved.

W. G. Larrabee—I will leave this for some one to answer that knows more about it than I do.

Prof. A. J. Cook—No. It is not natural for bees to mate except on the wing. Why ask, then? Why not prove your position?

C. H. Dibbern—No; too much fuss and bother. If you think it can, why not prove it to the world and immortalize yourself.

J. E. Pond—No, I do not. It in my opinion is so directly in antagonism to natural laws that it can never be accomplisht successfully.

R. L. Taylor—No. Because for the most perfect fertilization, the drone requires the excitement of a chase on the wing in the open air.

E. France—I do believe that queens *will be* fertilized in some way by artificial means. How, I don't know. But man is a smart chap, and it will be done, sure.

Dr. J. P. H. Brown—Up to the present date in bee-history its accomplishment has not been made a success. You now have a fine chance to immortalize yourself.

G. M. Doolittle—Put your belief into practice, and *prove it a practical fact*, and you will become one of the most *honored* among the bee-fraternity, whether you reap a financial gain from it or not.

G. W. Demaree—I believe fertilization in confinement possible, but hardly practicable. I have experimented largely for years along this line, and have met with some progress, at least. I see

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They have also one **One of the Largest Factories** and the latest and most-improved machinery for the manufacture of

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that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polisht on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equipt with best machinery, all combine to enable this firm to furnish the

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Works Like a Charm.

The Monette Queen-Clipping Device WORKS LIKE A CHARM. With it I have clipped 30 queens, all in one day, when examining my bees. WM. STOLLEY, Grand Island, Nebr.

Couldn't Do Without It.

I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now. DR. GEO. LACKE, Newburgh, Ind.

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HUDSON, St. Croix Co., WIS.
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Beeswax Wanted.
M. H. HUNT, Bell Branch, Mich.
Please mention Bee Journal when writing.

BEE-KEEPERS! Let me send you my 64-page Catalog for 1897.
J. M. Jenkins, Wetumpka, Ala.

Please mention Bee Journal when writing.

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—FINE ITALIAN-HYBRIDS—

30 miles northwest of Chicago. in 9-frame Langstroth hives. Bees in good condition. Only a few colonies. Too warm to ship long distance. Prices—$5.00 per colony; 5 colonies, at $4.75 each: or 10 colonies at $4.50 each.

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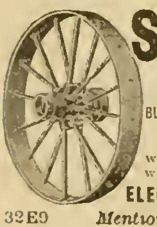
Queens I have **500** Untested 3 or 5 Banders—45c. each. Tested 3 Banders. 70c. each. They are Fine, Large Queens, and free from all disease. This is a Money Order office Write for wholesale prices. DANIEL WURTH, Falmouth, Rush Co., Ind.
28E4t Please mention the Bee Journal.



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Untested, 50c.; Tested, 75c. Safe arrival guaranteed. Address.

Judge E. Y. TERRAL & CO.
26Atf CAMERON, TEXAS.
Please mention Bee Journal when writing.

nothing in Mr. Doolittle's book solving this question.

Rev. M. Mahin—I have tried many experiments in that line, but without any success. I know that queens have been fertilized that could not fly. Two cases of the kind have come under my observation, one in my boyhood, and one some years ago. My father clipt a queen's wing, and after coming out every day for a week or so, she ceast to come out, and the next summer came out with a large swarm. A few years ago I clipt the wing of a virgin queen to prevent the killing of some choice drones, as I wanted them to fertilize some young queens. After my other queens were fertilized I went to the hive, and found that my clipt queen had just become fertile, and I sold her the next spring for three dollars. But I have little hope that the fertilization of queens in confinement can ever be made a success.

General Items.

Bee-Keeping in Old Mexico.

The people here are only awakening to modern bee-keeping, and I am proud to say, that the most part of it is due to my efforts. We have very hot weather now, without rain, and bees are working with all vigor. The rains let them work only half a day. The best harvest time is from September to May. I find many valuable kinks in the American Bee Journal, so much more valuable for me, as I have to find out everything for myself. I hope it will prosper for a long time, and its editor, too. F. BUSSLER.

Mexico, Aug., 12.

* * *

Almost My "Waterloo."

The morning of July 30 was warm and sticky. It lookt and felt as tho rain might fall any moment. But those supers had to be put on, or perhaps lose a valuable swarm. Somehow I had misgivings of trouble—my courage was not up to its occasional standard; but—as I said—those supers certainly ought to top that hive.

By considerable mental persuasion I put on the veil, got the smoker to do its best, buttoned up my coat collar, and started. I took off the top cover, peekt in—bees attenting strictly to business. I gave them a dose of smoke to let them know that I—their master—was around. By the time I got the super ready to put over them they showed, as I interpreted it, a somewhat rebellious spirit. Well, I couldn't allow such temper, so I applied the smoker again. But this time it failed to smudge—the fire had gone out just at the supreme moment. Those pesky varmints seemed to understand, and came at me so cordially that I retreated like a man—with several stings in my hide to prove my valor.

Now my Milesian courage was up. I'd see about teaching these winged ingrates! I'd have no foolishness this time. I made a furnace fire in that old smoker; gave it a few vigorous puffs to make certain of its business intentions; took a closer reef in my bee-veil, and assumed the mien of a veteran. Forward—front face!

This second assault was a success—partly. They were in force in line of

Foundation —Sections— Hives or any Other Supplies.

If you are in a **rush,** send me your order. I sell **the best only,** and fill orders promptly at LOWEST PRICE. **Beeswax wanted in exchange.**

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Pouder's Honey-Jars, and every thing used by bee-keepers Prompt service, low freight rate. Cat free. Walter S Pouder,
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INDIANAPOLIS, INDIANA
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That covers the whole Apicultural Field more completely than any other published, send $1.25 to Prof. A. J. Cook, Claremont, Calif., for his

Bee-Keeper's Guide.

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Has No Sag in Brood-Frames

Thin Flat-Bottom Foundation

Has No Fishbone in the Surplus Honey.

Being the cleanest is usually worked the quickest of any Foundation made

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Sole Manufacturer,
Sprout Brook Montgomery Co., N. Y.
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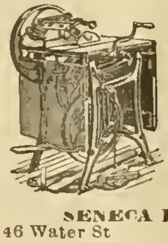
The Very Best general-service Remedy to be had **AT ANY PRICE.**

A supply of Zonet Cathartics is now added to each box.

100 in a Box, $1.00—17 in a Box, 25c.

W. B. House, Drawer 1, Detour, Mich.
15Atf Please mention the Bee Journal.



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battle. Great guns, how they charged bayonets! Again the cowardly smoker failed to support me at the most critical time of attack. I tried to at least put on the cover to keep them confined. Not much! They wouldn't have it. They came at me, thousands strong, putting in their best prods at all vulnerable points. They were too many for me—I had to retreat, and—I say it with regret—not in the most approved military order.

Ah—ah—says I to myself—this, then, is the evidence of your gratitude for my solicitous care, eh? All right; we'll see.

On with my helmet well tuckt around, and fire enough in the old tin thing to run a locomotive. Now, to do or die in the attempt. But the bees were there, my countrymen! So was my smoker—but no smoke. Betrayed again by my trusted smudger, I determined to conquer, single and alone. The bees literally swarmed over me, even came inside my glove to shake me a fiery welcome. They overwhelmed me with their demonstrations. Never received such a warm reception in my life before. But the supers. I succeeded in getting them on that hive just as they found a convenient rent in my armor, and the way they improved their opportunity would astonish Napoleon!

Thirty-seven stings by actual count, firmly imbedded in my neck, chin, ears and forehead. The unanimous verdict was that I was a prize for any dime-museum. But I "got there." EMM DEE.

* * *

A Man and His Shoes.

How much a man is like his shoes!
For instance both a sole may lose.
Both have been tanned. Both are made tight
By cobblers. Both get left and right,
Both need a mate to be complete,
And both are made to go on feet.
They both need healing; oft are sold,
And both in time will turn to mold.
With shoes the last is first, with men
The first shall be last, and when
The shoes wear out they're mended new,
When men wear out they're men dead too.
They both are trod upon, and both
Will tread upon others, nothing loth.
Both have their ties, and both incline,
When polisht in the world to shine,
And both peg out—now, would you choose
To be a man or be his shoes?—*Selected.*

* * *

Tricksters at County Fairs.

Wherever large numbers of people gather, a class of persons is usually found who make a living by deceiving the public. They have schemes and tricks innumerable that appear to be easy and simple; but in reality they are quite difficult and in some cases impossible to successfully perform. They have wheels and machines that are doctored to turn as the proprietor may wish to make them. They have cocoanut-headed negro dodgers to arouse the brutality in men and boys. They have tented shows which are disgusting in coarseness and vulgarity.

Among the throngs at Agricultural Fairs these leeches are out of place. They contribute nothing helpful or good. They do not add to the attraction of the fair. They do not bring desirable patrons. They do not swell the gate receipts.

They are not patronized by intelligent patrons of the fair. They are not wanted by honest farmers. They are shunned with fear by thoughtful parents. Because of their presence, even the fair is not patronized by many of our best citizens' families.

The harm accomplisht by these self-invited fakirs would doubtless surprise us, were it possible to gather and trace back to their door all the results of their work. They distract the thought, they divert the attention, they destroy the interest in the real work of the fair. The competitive exhibitions, the meritorious displays, the awarding of prizes are all robbed of the undivided interest that belongs to them, and which the proprietors have labored day and night to develop.

The morals of the country suffer seriously, we believe, from actions and words that, without warning, are sprung upon inquisitive audiences in the tent shows.

We are glad to see that a strong effort is being put forth this season to keep these objectionable features out of the grounds, and the attitude of the managers is encouraging. E. B.
Suffolk Co., Mass.

Employ Nature

The best physician to heal your ills. Send for FREE Pamphlet explaining how diseases of the Blood, Skin, Liver, Kidneys and Lungs can be cured without drugs.

F. M. SPRINGS CO.,
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Egg Preservative

That will keep Hen's Eggs perfectly through warm weather, just as good as fresh ones for cooking and frosting. One man paid 10 cents a dozen for the eggs he preserved, and then later sold them for 25 cents a dozen. You can preserve them for about **1 cent per dozen.** Now is the time to do it, while eggs are cheap.

Address for Circular giving further information—
Dr. A. B. MASON,
3512 Monroe Street, - TOLEDO, OHIO.
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For a limited time we wish to make our readers a **special offer** on booklets on Bees, Poultry, Health, etc. Upon receipt of **75 cents** we will mail any **6** of the list below; and **for $1.25** we will mail the **whole dozen**·

1. Foul Brood, by Dr. Howard	25c
2. Poultry for Market and Profit	25c
3. Turkeys for Market and Profit	25c
4. Our Poultry Doctor	30c
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7. Kendall's Horse-Book	25c
8. Rural Life	25c
9. Ropp's Commercial Calculator	25c
10. Foul Brood, by Kohnke	10c
11. Silo and Silage, by Prof Cook	25c
12. Bienen-Kultur, by Newman	40c

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Bee-Hives, Sections, Shipping-Cases—everything used by bee-keepers. Orders filled promptly. Send for catalog. MINNESOTA BEE-KEEPERS' SUPPLY MFG. CO., Nicollet Island, Minneapolis, Minn.
22Atf CHAS. MONDENG, Mgr.
Please mention Bee Journal when writing.

FOR SALE.

1000 pounds of White Clover Comb Honey.
Price, 11 cts. per pound
600 lbs. White Clover Honey at 7c. per pound.
28A **Edw. E. Smith, Carpenter, Ill.**
Please mention Bee Journal when writing.

Italian Queens **By Return Mail.**

Untested, 50c.; Tested, $1.00.
Nuclei, 2 frame, $1.35, including a good Queen
E. L. CARRINGTON,
22Atf **De Funiak Springs, Fla.**
Please mention Bee Journal when writing.

Minnesota.—The third annual meeting of the Southern Minnesota Bee-Keepers' Association will be held in Winona, Wednesday and Thursday, Sept. 15 and 16, 1897, opening at 9 o'clock, a.m., each day. All are cordially invited to come and bring their friends.
Winona, Minn. E. C. CORNWELL, Sec.

* * *

Good Advice for Everybody.

If you have a friend worth loving,
Love him. Yes, and let him know
That you love him ere life's evening
Tinge his brow with sunset glow.
Why should good words ne'er be said
Of a friend till he is dead?—*Selected.*

* * *

Report from Indian Territory.

I commenced last spring with 10 colonies, and one of them queenless. I now have 43 in 8 frame hives. This is my third year. Last year was a complete failure; this is the first year I have had any surplus. My bees are doing very well, but there is too much honey-dew—honey is dark.

I am reading everything I can get regarding bees and honey. I commenced with the American Bee Journal and I can truthfully say I owe a good portion of my success to it. You can regard me a life-long reader. J. T. HAIRSTON.
Choctaw Nation, Ind. Ter., Aug. 9.

* * *

Very Light Honey Crop.

The honey season in this locality is over, and so far as I can learn of the northern part of the state it is a very light crop. My crop is about half what it was last year and there are a number of yards, numbering 40 to 75 colonies, that report little or none at all.

The honey season here was unusually late. Clover did not get in shape for the bees until June 20 then they went to work with a rush seldom seen, for a few days, but the exceedingly hot weather soon ripened every blossom and put an end to all our hopes of getting that immense crop of honey that so much was said about in the papers.

We have nothing here to give us a fall crop of honey.

There will be hundreds of acres of Alsike Clover in bloom here in a short time, but I never knew the second crop to furnish any honey. IRA BARBER.
St. Lawrence Co., N. Y. Aug. 9.

* * *

Bee-Keeper's Guide—see page 544.

HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Aug. 9.—Fancy white 12c.; No. 1. 10 to 11c.; fancy amber, 9c.; No. 1, 7c.; fancy dark, 8c.; No 1, 7c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½c. Beeswax, 26 to 27c.

The offerings of comb honey are fully equal to the demand this week. The trade takes very sparingly of it during the fly time. There continues to be a light call for extracted, while for beeswax a steady demand continues.

Milwaukee, Wis., Aug. 14.—Fancy white, 12 to 13c.; No. 1, 10 to 11c; fancy amber, 8 to 10c.; No. 1, 7 to 8c.; fancy dark, 7 to 8c. Extracted, white, 5 to 6c.; amber, 4 to 4½c. Beeswax, 25 to 27c.

The remnants of old crop honey remaining are not very large, and mostly of common and medium quality, and such is very hard to sell at any price. There has been some new extracted received, but not of the BEST quality—think it was extracted too soon, as it is thin and watery, and not very salable. The demand is as good as usual at this season Think we are safe in holding out encouragement to shippers that for the new crop of choice qualities of comb and extracted honey this market will give them as good results as any other.

Cincinnati, Ohio, Aug. 9.—Fancy white, 11 to 13c.; No. 1, 10 to 11c.; No. 1 amber, 7 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½ to 4c. Beeswax, 20 to 25c.

Demand is fair so far for best qualities of comb honey. We have hardly ever yet, at this time of the year, disposed of as much honey as we did this season. Arrivals have been liberal so far.

Albany, N. Y., July 31.—Fancy white, 11@12c.; fancy amber, 7@8c.; fancy dark, 6@8c.; white, extracted, 5c; dark, 4c.

But very little is doing in honey this month. There is a small stock of inferior comb honey on the market, and quite a little extracted. Bees are said to be doing nicely in this section.

Minneapolis, Minn., Aug. 9. — Fancy white, 11 to 13c.; No. 1, 10 to 11c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c; fancy dark, 8 to 9c.; No. 1 dark, 6 to 7c. Extracted, white, 5 to 6c. Beeswax, 23 to 25c.

Stocks comparatively bare. Fair demand. Goods here now would meet with good sales.

Detroit, Mich., Aug. 10—Fancy white, 11 to 12c.; No. 1 white, 10-11c. Extracted, white, 5 to 5½c. Beeswax, 25 to 26c.

No dark honey of this year's crop yet offered.

New York, N. Y., Aug. 9.—Fancy white, 12c.; No. 1, 11c.; fancy amber, 10c. Extracted, white, 5 to 5¼c.; amber, 4½ to 4¾c. Beeswax, 26 to 27c.

There is some demand for new crop comb, and some lots we received sold at from 10 to 12c. a pound. Prices for new crop are not settled, as our market actually does not open up before about Sept. 1. Extracted: Market quiet and easy, with large supply from the South and California. We quote: California light amber, 4½ to 4¾c.; white, 5 to 5¼c. Southern, 50 to 55c. a gallon, according to quality. Beeswax without change.

Kansas City, Mo., Aug. 10.—Fancy white, 13c.; No. 1, 11 to 12c.; fancy amber, 10 to 11c.; No. 1, 9 to 10c.; fancy dark, 8 to 9c.; No. 1, 7 to 8c. Extracted, white, 5 to 5½c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 25c.

There is very little demand for honey this hot weather, but will improve with cooler weather.

Indianapolis, Ind., Aug. 7.—Fancy white, 10 to 12½c.; No 1, 9 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c. Beeswax, 25 to 27c.

I have received several lots of comb honey which was billed to me as "fancy white," but on opening a case I found that it was fancy white next to the glass only, the rest being old soiled sections with crooked combs and dark honey. I don't know that the power of the press will ever reach this class of producers, but such goods have to be recrated and reweighed, and are not satisfactory after all.

Boston, Mass., Aug. 9. — Fancy white, 13c.; No. 1, 12c. Extracted, white, 6 to 7c.; amber, 5 to 6c. Beeswax, 27c.

New comb now arriving in small lots, but fully equal to the demand. Beeswax is wanted, and practically none here.

St. Louis, Mo., Aug. 9.—Fancy white, 12 to 12½c.; No. 1, 11 to 11½c.; fancy amber, 10 to 10½c.; No. 1, 9 to 9½c fancy dark, 8 to 8½c.; No. 1, 5 to 7c. Extracted, white, 5 to 5¼c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 24 to 24½c.

The weather so far this season has been too warm for the free movement of honey, but with the present prices on sugar we think there should be a good demand for extracted honey at the above prices. One car of 24,000 pounds sold since our last quotation on basis of above prices. Beeswax finds ready sale at 24c. for prime, while choice stock brings a little more.

San Francisco, Calif., Aug. 4. — White comb, 1-lbs., 7 to 9c.; amber comb, 4 to 6c. Extracted, white, 4½ to 5c.; light amber, 3½ to 4c.; dark tule, 2¾c. Beeswax, fair to choice, 25-26c.

While the market is not especially weak, it is quiet. There is considerably more offering than can be accommodated with custom at full current figures. Only on local account are top prices obtainable, and the quantity required for home use is light. There are no excessive stocks of beeswax on the market, and not likely to be the current season.

Cleveland, Ohio, Aug. 10.—Fancy white, 12½ to 13c.; No. 1, 11 to 12c.; fancy amber, 9c. Extracted, white, 6 to 7c.

Very little new honey in the merket. The demand for new honey the past week was fairly well thus early in the season. No demand for old honey whatever.

Buffalo, N. Y., Aug 9.—Fancy white, 11 to 12c.; No. 1, 9 to 10c., fancy amber, 7 to 8c.; No. 1, 6½ to 7c.; fancy dark, 5 to 7c.; No. 1 5 to 7c. Extracted white, 5 to 6c.; amber, 4½ to 5c.; dark, 4 to 4½c. Beeswax, 23 to 28c.

Moderate demand for any grade. Better hold till October, when we can place liberal quantities.

Philadelphia, Pa., Aug 10.—Fancy white, 12 to 13c; No 1, 11 to 12c.; fancy amber, 10 to 11c.; No. 1, 9c.; fancy dark, 8c.; No. 1, 6 to 7c. Extracted, white, 5 to 6c.; amber, 4 to 5c; dark, 4c. Beeswax, 25c.

Honey arriving freely. But little demand during this hot weather. California honey already bearing down the market.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

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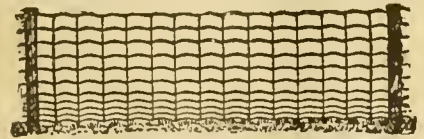

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37th Year. CHICAGO, ILL., SEPTEMBER 2, 1897. No. 35.

Contributed Articles

Feeding Bees for Stimulative Purposes.

BY DR. E. GALLUP.

I did not fully answer Mr. Deacon's inquiry, and as there is another who requests me to answer the question when to feed, and how to feed for stimulating purposes, I will try to give my views more fully.

Bees are always ready to breed up at any season, either winter or summer, when conditions are favorable in this climate. I say "always," but I am mistaken in one case. I had one good Italian colony last fall that lay perfectly dormant through December and January last winter. I examined them twice during that time, for I could not understand why there was not a bee flying from that colony, when other colonies were at work the same as in summer, yet that colony was strong enough in numbers, but not an egg did that queen lay during those two months. They were on hand at swarming-time in March, and have proved as profitable a colony as I had in the lot.

Apiary of Masters George and Wayne Robey, of Neosho Co., Kansas.

In the spring of 1886 we had nearly two months that it was profitable to stimulate. I had one super of 12 frames full of sealed honey, so I gave each colony a frame of this honey, and stimulated them by breaking the cappings by pressing the flat side of a case-knife against the comb and drawing it across the comb. This is a very good way of stimulating. It was so cool and windy that the bees would have actually stood still.

Again, we stimulate at any time during the summer if there are only four or five days that the bees cannot work. We do this by raising the front end of the hive and pouring diluted honey in at the entrance, just at night. It requires only a very little, providing they have old honey in the hive. Many times in the East bees are about ready to swarm, and there come eight or more days of cool, rainy weather, and the bees will tear down queen-cells, and even kill off their drones. A little stimulation at such a time will keep all things moving right along. I never allow a colony or nucleus to become discouraged for lack of a little stimulation; even in this climate I consider it poor policy.

If we hive a new swarm, and the weather is not just right for the secretion of nectar, we always feed freely, as it requires plenty in order to build comb at any time in the season.

This has been an exceptionally fine season with me—almost a continuous flow of nectar. Still, I fed eight two-quart jars of honey for stimulating purposes. One almost always has some inferior quality of extracted honey that is not fit to sell. Dilute it with half water for stimulating. I had six old, rotten box-hives of black bees given to me, and I put honey-comb and all into the sun extractor, after driving out the bees, then allowing the brood to hatch. I used the bees to stock nuclei for queen-breeding, and now I have them built up into extra-good Italian colonies. This honey was good for nothing else, only to manufacture into bees, and my neighbors used to say in Iowa, "Give Gallup a little honey and a few buckwheat hulls, and he will manufacture a colony of bees at any time."

You probably say there is work about this. What are we keeping bees for? It is just as poor economy to allow your bees to do without feed at any season as it is to starve your stock. Orange Co., Calif., Aug. 2.

Where to Store Comb Honey.

BY G. M. DOOLITTLE.

As the season of the year is upon us when we are taking section honey from the hives, it may be well to ask about where we shall store it, unless we have thought the matter up before, and come to a correct conclusion. A "correct conclusion," when I first kept bees, always said, "Keep section honey in the cellar," and then when askt "why," I was always met with, "Because that is where all of our ancestors kept it." Well, because a majority do a thing, it does not always prove that what the majority do is the best thing to do. The majority did not go in the ark with Noah, yet no one, seeing things in the light of the past, will now say aught against what Noah did. Then Noah and the right were finally in the majority when he came out of the ark.

Likewise, one or two began to preach that a continued keeping of honey in the cellar would cause it to be drowned with dampness until it would be of no more value than were the people who persisted in staying out of the ark, when they were laught at and mockt; but a continuous preaching, and that backt by thousands of pounds of souring, fermenting and sickening looking and smelling honey, as I once saw in the city of New York, changed things so that those who stood for a warm room as being the place to keep honey as soon as taken from the hive, are in the majority now, among those who read our bee-papers.

If the temperature of the room need never fall below 70° Fahr., standing from that to 100° of heat, honey stored in such a room will be always improving, and would keep its excellent qualities for years. Because such temperature is hard to maintain, is the reason that honey in the comb is allowed to deteriorate, and that no one wants old honey after the new has come upon the market. I once kept section honey by the aid of a coal-stove, so that it was much better every way at the end of three years, than was some of the same honey when it was taken from the hive.

Many of our Eastern bee-keepers store their honey in a loft, or room just under the roof of the house, which is the best possible place for summer keep, and such a place is advisable where some hoisting apparatus can be furnisht to do the work of elevating it.

The next best thing is to have a one-story building, raised a suitable distance from the ground, say from 18 inches to 2 feet, the same being covered with a metal roof, which should be painted red or black. If, in addition to this, the sunny sides of the building are painted dark also, you will have heat sufficient to ripen your honey in fine shape, unless there should come two or three weeks of cloudy, rainy weather, as we sometimes have here, in which case artificial heat should be resorted to.

The honey should be piled a few inches off the floor, and a little out from the wall, otherwise that near the bottom and side of the room will accumulate moisture from want of circulation of air. Honey that is sealed will stand much more dampness and non-circulation of air than will that which is unsealed; hence, it is well, as far as may be, to pile that the most perfectly sealed near the bottom of the pile, and that less sealed nearer the top. There are very few sections but what have more or less unsealed cells where the same border on the wood to the section, and these are what cause the trouble of leaky sections more than anything else, for very few practical apiarists will take much honey from the hive having unsealed cells, except those noted.

Now, if our storing-room can have a temperature and dryness of air sufficient to evaporate or thicken the honey in the cells next to the wood, we are boss of the situation, till the honey leaves our hands, and can place it on the market in the best possible shape. I have had the honey so thin in these open cells when taken from the hive, that it would run out and daub things if the section was not kept in an upright position, and yet, after three weeks' stay in my honey-room, with a temperature as above, the same section could be rolled about at pleasure, and not a drop of honey come from any cell, it was so evaporated or thickened.

Then, there is another point in favor of this warm-room plan: Where honey is shipt to a distance, unless kept as above, it will rarely hold out weight when it reaches its destination, as the dry car will absorb much of the moisture from the honey, thus causing the one to whom you ship to report a shortage, and you to consider him dishonest. But take honey from your dry, hot room, and ship it, and instead of drying out it will be liable to come in contact with an atmosphere more moist than the one in which you kept it, and the result is that every case weighs, on reaching its destination, from several ounces to a pound more than it did with you, thus giving you the name of giving "good weight."—Progressive Bee-Keeper.

A Few Experiences of the Past Season.

BY E. B. TYRRELL.

I will try to give some of my past season's experiences in the "Mysteries and Miseries of Bee-Keeping," as Mr. Edwin Bevins puts it.

By the way, Mr. Bevins reminds me of the cow that gave a fine pail of milk, and then kickt it over before the milker could rise from his stool; for in one paragraph he advocates producing only extracted honey, and in the next he "gives himself away," that he is a *comb* honey producer. Can't be that Mr. Bevins practices what he preaches.

I started the season with one great, big mistake, which I will tell about, as it may benefit some one else, altho I am ashamed to acknowledge the mistake. It was in not being in readiness for the bees. I neglected getting my hives and frames in readiness early, and consequently I lost much honey, and also many valuable swarms.

One thing which I wish to call the attention of the readers of the Bee Journal to, is in the matter of *bottom* hive-ventilation during the hot summer months. I gave all my hives ventilation by raising the backs of the hives up about ¾ or 1 inch, by placing a little pebble under the back of the hive, and the bees did not mind the heat, altho some apiarists around here lost bees by the combs melting down.

Oh, yes, that reminds me that this is my first season with chaff hives, and I can't say that I like them, as they are too clumsy to handle. I believe they are good winter and spring hives, but I don't like them in summer. They are too expensive, clumsy and warm. Yes, and I had one swarm in a 20-frame hive, one-story, and altho it gave me good results as far as honey is concerned, I don't believe I'll make another, for the reason that it is too clumsy, and, besides, there is too much surface exposed when you take the cover off for the purpose of getting at the frames. The bees would crawl all over the top and sides of the hive, making a nasty mess to work in.

I have decided to produce extracted honey, and I believe I will stick to the 8-frame Langstroth hive, tiering it up as high as needed. My extractor calls for a Langstroth frame, and as yet I have found no very serious objection to this frame, and eight of them in a hive makes a nice size to handle.

Genesee Co., Mich., Aug. 14.

My Old Neighbor and His Bees.

BY GEO. H. STIPP.

The bee is a funny little creature, but she is too willing to poke her fun at other people's expense, and make some stinging remark which causes a person to feel a little smart.

I have a neighbor who keeps bees. He is also a funny fellow, altho he is more than 80 years of age. Of course, he is too old to learn; man at that age knows it all, anyway. He has a way of keeping bees that's all his own, derived from the mature experience of antedeluvian days. He has, however, been won over, by hook or crook, from the box-hive, and tinkers up some sort of a rickety imitation of a Langstroth hive, with Hoffman frames, by means of dull jack-knife and rusty bucksaw.

My first inspiration in bee-keeping came from this quaint old fellow; so did my first hive. I shall never forget it, for it was a nuisance which ruffled my temper more times than I can tell, and caused no end of trouble during the whole time it was in my yard. There was no bee-space above the frames, and the way the poor bees were squasht under the cover made my blood run cold till I got bee-sense enough to tack some strips on the top of the hive. But, even then, peace did not reign, for everything was wrong, and the frames would not fit other hives. At last, I transferred bees and comb to a newer and better hive, and, in cutting away the comb from the old frames, by an accidental scratch of the knife, I was astonisht to find some of the top-bars filled with moth-larvæ which had bored into the wood and had been waxt over by the bees in such a manner as to make discovery extremely unlikely. It is needless to say they were the black bees. The frames went into the fire, instanter, and I thankt my stars I had made the change.

But to return to my amusing neighbor! He keeps his colonies (some 20 in number) crowded together on a long board resting on two end supports. This rough bench bends down in the middle with the weight of the bees in a way that I know must be awfully uncomfortable to the poor creatures, to say nothing of the unpleasantness of being very near neighbors to one another. The hives are of all kinds, sizes and shapes; old, dirty and unkempt, with boxes, boards, and all sorts of traps piled atop of them. For these and many other reasons his bees have the reputation, well deserved, of being the crossest bees in Christendom.

The only thing that troubles the old gentleman is "those pesky, black robber-bees that come down from the mountains" to steal his honey. Of course, his own bees are good Christian bees, strict observers of the ten commandments. His bees never steal! It is the wicked *black* bee of the mountains —those shiny fellows; altho his bees are about as black as good religious bees can be.

Of course, like more wicked bees, his bees swarm at the proper season; in fact, they swarm all over the season and the country when they get started, and, because of their honeyed (?) dispositions, they make things lively in the neighborhood. Except for the fun, the neighbors would wish they had never been born—the bees, of course. Almost every day, and several times a day, the old gentleman may be seen and heard out in the field beating a tin pan among the bees to "call them down." Altho on such occasions he usually wears a long, dirty, trally piece of faded orange-yellow "skeeter" bar, full of holes, he brags of his lack of fear of bee-stings. The youthful hirsute adornment of his head has long since past away, and instead thereof he covers his shining bald pate with a wig whose color is of that significant hue suggestive of a jute bag.

Before we knew better, we rusht out to help him settle his swarms, emboldened by pleasant experiences in settling our own bees, and imbued with a desire to be neighborly. But, after several severe battles, we ceast "to have went." After the first onslaught, the bees settled us, and we could be seen scattering ourselves to all points of the compass, clearing the adjacent air with indescribable hastiness of demeanor at variance with the usual dignity of bee-keepers, and leaving naught behind us save a blue streak—of exclamation points and some painful recollections.

On one particular occasion, the old gentleman held his ground for quite awhile. Suddenly, however, the soft music of his timbrel ceast, and a retrospective view could be seen of him spreading his tracks around the barn with the gaudily colored netting streaming behind like the loose habiliments of a dancing dervish. In the wild scramble, the wig had lost itself, and a little later the owner was found in the barn, clawing mad bees from his whiskers and out of his sleeves and pantaloons. Presently the door of his house opened, and his good wife launcht forth such a tirade—I really believe the poor old fellow wisht the bees would sting some more. Boiled down, it was about like this: Now, pah, you'd better come in and let them bees alone, or they'll sting you so bad you'll git blood-pizen, sure." To this the patient old man solemnly replied, "Mother, we still live."

He generally monkeys with his bees about dark, as he thinks they are quieter then. He frequently comes over to borrow my smoker, which he considers a grand thing; but not grand enough to own one himself. To let him tell the tale, "Them bees are just *full* of honey," and no doubt the overflow is running down their little legs. But he doesn't let them stay full long, and if it were not for our generally open winters, they would surely starve to death. The honey he does secure is usually so mussy that it is almost unsalable beside better goods. He shipt some to the city once; but, like the cat, it came back, much the worse for wear—the commission men wouldn't handle it, principally because of its condition through bad packing.

When the old gentleman examines his hives, he cautiously prys a cover off, peeps in, puts the cover on, bears his weight upon it—"squash!" go a score of bees into eternity. Such a thing as sliding the cover on never occurred to him, and his place is too crowded for manipulation of any kind. I often wonder if, when the time comes, the hand of Death will be laid upon him so heavily as to squash *him* into Eternity, or will the lid be slid gently on as he sinks into the quiet, peaceful slumber of the great beyond?

Santa Clara Co., Calif.

The Season—Experiments with Non-Swarmers.

BY L. A. ASPINWALL.

Certainly, the continuous hum of bees for more than three weeks during oppressively warm weather, had a semblance of the monotonous roar which characterizes that of Niagara, and added to the monotone was the inability to keep pace with our bees in removing and supplying supers.

The season has been extraordinary in many respects, and the honey-yield phenomenal; never have I known its equal. This extraordinary yield appears still more phenomenal, when but 18 months ago bee-keepers were bemoaning the condition which seemed to indicate that our honey-sources were being obliterated by the woodman's axe, and a succession of extremely dry seasons. But following these conditions comes the present season with an unprecedented amount of white clover. Where none was visible last season it completely covered the ground. It seemed as tho an angel had come down and sowed it thickly, far and wide.

This has led me to consider how, in the face of apparent death, comes such an abundance. Surely, Nature is founded in wisdom, and her resources are indestructible. Has not the seed accumulated during the past five or six years of drouth, and the requisite amount of moisture necessary to its germination and extension by the rooting tendrils given us more than could have been expected; and has not Nature more than ever before displayed her marvelous stores?

In connection with, or rather preceding this extraordinary condition, the weather was unseasonably cold, and unfavorable to the flight of bees. My hives having been well packt until a few days preceding the honey-flow, which opened suddenly with warm weather on June 10, were overflowing with bees, even in my large hives (altho supplied with dummies), which place them again in the condition of swarming colonies. I became extremely anxious as to the situation, wondering if it were possible to hold them from swarming with such a sudden change of temperature, accompanied by the great flow of nectar, also an unusual proportion of field-bees with perfect or unworn wings (by reason of non-use) compared with the middle-aged or comb-building bees, which would naturally carry honey to the latter faster than their ability to care for it, clogging the hive and increasing the tendency to swarm.

Swarming was greatly retarded by use of the dummies, and late compared with my neighbors, most of the swarms being between the 20th and 30th of June, some of the parent colonies having stored upwards of 40 pounds previous to the issue. At first thought I attributed the failure to new dummies which I substituted for those of last season, but, upon reflection, seeing that my hives were too small and the season unusually favorable to swarming, I concluded that possibly it was not in the dummy, but a return of the crowded condition like that of swarming hives. My hives have a capacity for but 11 frames, and upon careful consideration I have concluded that with a space for 15 or 16, a little less than half of which could be occupied with dummies, better results might be obtained.

I am really surpised that the additional room for three frames (occupied by dummies) should have produced such satisfactory results heretofore, and to have retarded swarming to the extent it did this season, all things taken into consideration. There was, however, a noticeable fact presented which has given me great encouragement for the future non-swarmer. It was the unusual number of bees which remained with the parent colonies almost without exception. So strong were they that the storage of honey in the supers was continued or resumed in two or three days, and which has given me an average of about 60 pounds per colony, with about 40 pounds more in sight; some sweet clover, however, will be mixt with the latter.

Altho the flow was great and tended to fill the bee-keeper with enthusiasm, still the brood-chambers are very much clogged with honey, to the exclusion of brood. This, of course, is unfavorable to the best results just at present, still, with a favorable season from this out, altho not in a basswood locality, I should look for at least 100 pounds per colony.

I learn that the intensely warm weather has ruined a few colonies by softening and breakage of the combs in this and doubtless many other localities; still none of mine have suffered. The dummies favor ventilation, and should one comb soften and drop from the top-bar, the dummies would prevent further disaster by holding it partly in place. Three or four years ago I had several hives in which a single comb became detacht while the others remained intact by reason of the dummies.

Another advantage derived from the use of dummies is that already alluded to in affording more perfect ventilation, and with the additional room prevents the usual crowding or clustering on the outside during warm weather. The result has been, and is, that no loafing colonies are found in my apiary. There is a markt difference in the aggregate amount of honey stored when every colony in the yard is doing something. Of course, the equalization of colonies during the month of May, as set forth in a previous article, is the prime essential to such a result.

APIARIAN IMPROVEMENTS—HONEY PRICES.

The conditions which have changed from time to time in bee-keeping, as in all branches of human affairs, are marvelous. The revolution caused by the invention of movable frames and comb foundation has enabled the specialist to produce a much finer product of comb honey at greatly reduced cost. We look at the quotations to-day and compare with the price of 30 or 40 years ago, feeling as tho the bottom had dropt out of bee-keeping. But when the Quinby system was in vogue, and honey commanding 25 cents per pound, how much were we able to secure per colony as compared with today? If an average of 25 pounds per colony was obtained it was considered a good one. To-day we are far in advance of that, with a price commensurate with the outlay.

The advent of movable frames and comb foundation were at the time of high prices, and those who first occupied the field enjoyed the golden age of bee-keeping.

To-day we are upon a better basis as regards profits than when honey commanded 25 cents per pound. We can produce at least three times the quantity, and with factory-made supplies at a cost not exceeding the percentage of former years. I am speaking strictly in reference to honey-production. True, the value of, and sale of colonies, was greater than to-day.

The abundance of No. 1 clover honey this season will doubtless have a tendency to depress the market, especially as many who keep a few colonies will sell their surplus at what may be offered them, considering it clear gain. Bee-keepers should be firm in their prices, and be careful to offer none but their best in the first or fancy grade. This season will be one to establish a superior grade which must be attractive both as to quality and style of sections.

Taking into consideration the downward tendency of prices in all lines, any compensation by further increase of production would have a tendency to lower the market still more.

We cannot afford to increase our product as to lessen the cost of production, and as an illustration, the reason I am working to produce a non-swarmer is to that very end. And I think the trouble and annoyance of swarming is fully equal to all the other work during the honey season.—Bee-Keepers' Review. Jackson Co., Mich., July 24.

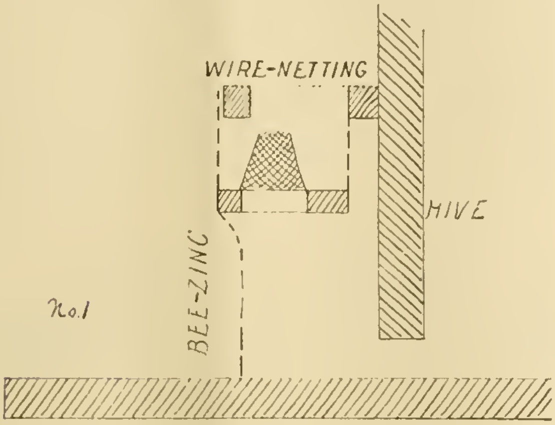
*

Some Practical Apiarian Details.

BY ADRIAN GETAZ.

Since using the queen and drone trap I have been dissatisfied with the slowness of its work. That is, before going up the cones the drones will remain quite a time below, and obstruct the way and the ventilation. In the hurry of swarming, the queen will run over the zinc a good deal, and when the swarm is entirely out, go back into the brood-nest without having even found the cones.

After trying several slight modifications in the shape and place of the cones, etc., I have closed the top of the trap with wire netting instead of a tin slide, so as to admit full light to the inside of the trap. This I find works to perfection. Not only drones and queens find the cones at once, but a number of bees choose that way of going out. The front part of the upper apartment of the trap must then necessarily be made of bee-zinc. Not only that, but the dead drones and other refuse too big to be pulled through the zinc are carried in the upper part of the trap, and do not clog the entrance. The following illustration (No. 1) makes that construction clear:

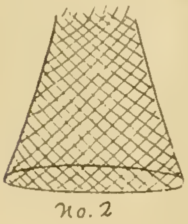


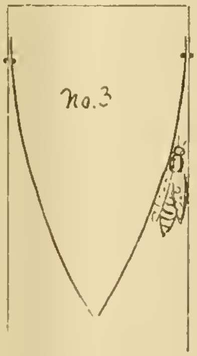
A few years ago, I made some experiments on the best shape to adopt for cone escapes. The shape now used by the makers is the best. A shape too narrow at the base induces the bees to go back when they begin to be squeezed. The opening must be sufficient to allow the bees to carry a dead drone through without getting it stuck at the apex.

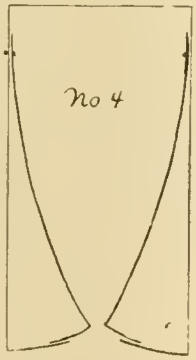
As to the length of the cone, it must be sufficient so that the cone is not covered. Whenever the top of the cone is covered with bees, the exit is stopt, and quite a number of worker-bees or drones will go back through the cone. If the cone is long enough, only a few worker-bees or drones can go back through it. That, however, depends upon the circumstances. As a rule, the drones will wear themselves to death before finding the way back. The worker-bees or queens, when finding themselves imprisoned, will hunt up an escape everywhere, and eventually go back.

A cone made out of a cut piece of cloth, sewed together with thin wire, will prevent going back better than one puncht out, especially if the edge is left ragged. (See No. 2.)

Bees or drones inside of the trap or the confined space will more or less run over the cone. Some will go on the edge of the escape-hole if it is smooth, and then go either back on the outside of the cone or sometimes inside of the hole. But when the edge is ragged, they will not stand on it, and the chances of going back are then greatly lessened, unless, of course, the cone should be completely covered.





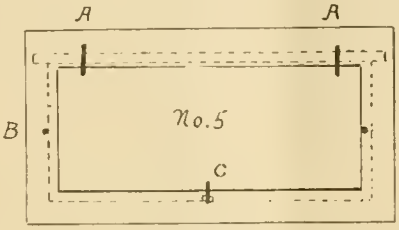


I have written considerably on the use of queen-traps, etc., to prevent swarming, and I just discovered that I had completely forgotten to say that it is necessary to cut out all the drone-comb possible, and thus reduce the number of drones, otherwise they would be so numerous that they would obstruct the traps and entrances completely.

I have seen reports stating that the Porter escapes failed to clear the supers. I don't know what was the trouble, but I know what has been the trouble with mine. If the escape board is placed directly on the brood-nest, the bees will more or less cluster under it, and prevent the others from coming out of the supers. Worse than that, some will attempt to go back into the supers, and get stuck between the springs and the walls of the escape, and thus shut up the whole thing (See No. 3).

I have sometimes thought that a construction like No. 4 would be better. At any rate, the present escape usually works well with me, by putting a super of empty sections between the escape-board and the brood-nest, preventing the congregating of bees on the escape.

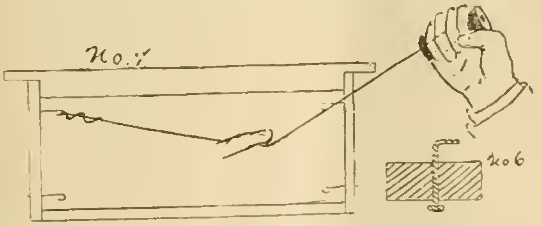
A good deal has been said against a bee-keeper making his own foundation. So far as section foundation is concerned, it would be impossible for an ordinary bee-keeper to make it as good as the foundation-makers, and none but the *very best* should be used. But with brood foundation for one's personal use, the case is altogether different, and it would be in the majority of cases a profit for the bee-keeper to use at least his own wax. After all is counted, the wax sold will not net much more than 20 cents per pound to the bee-keeper, while his foundation, freight, etc., included, will run to 50 or 60 cents per pound. And if the bee-keeper has some spare time in the winter evenings, or rainy days, he might as well put it in that way and save the difference.



Concerning the wiring of frames, I never succeeded in cutting the wire first. Perhaps it is on account of my natural awkwardness. I wire from the spool. I have a wiring-frame fixt conveniently, and built like No. 5. The dotted lines show where the brood-frame to be wired is placed. B B are merely nails. A A are hooks like this—⌉ ⌉—to hold the brood-frame. C (No. 6) is a third hook made so as to revolve, and hold the brood-frame after it is pusht under the hooks, A A.

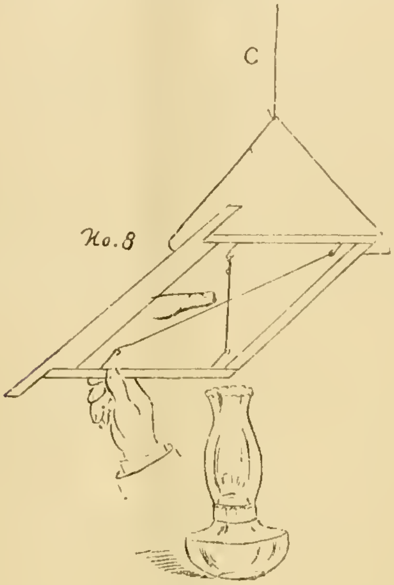
I first fasten the wire to the proper nail in the frame, and then holding the spool all the time in the left hand, pass the wire over the hookt nails where wanted with the aid of the right hand fingers. No. 7, I think, will explain itself. The spool stays in my hand from beginning to end, all the other movements being made with the other hand.

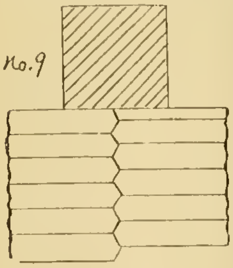
As to fastening the foundation to the wires, if a very great number was needed, it would probably be better to get an electric apparatus. But for a small number the lamp process invented by Dr. C. C. Miller is best. In order to facilitate the operation, I have a cord, C, hung to the ceiling of the room, upon which one end of the frame rests, the other end being held by one hand. (See No. 8.) I operate it in a rather dark room so as to see the wire and the light through the foundation. Move the frame so as to follow the wire, sliding

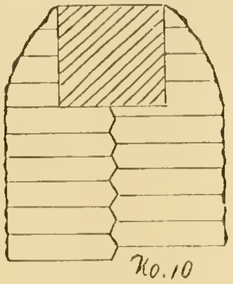


a finger over it so as to fasten the foundation, as it moves around.

When I first began bee-keeping, I bought four box-hive colonies and transferred them to frame hives of my own make. As I had for guides only Quinby and some French books, I made my frames with heavy top-bars. It was late when I transferred, and most of the combs were crooked and full of brood. In order to save the brood, I put in the crooked combs without straightening them. This resulted in bulged combs that had to be spaced accordingly in all sorts of distances.

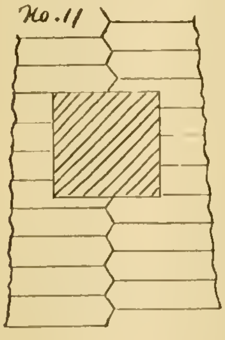


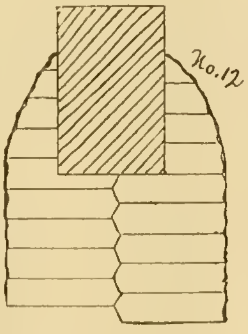




This afforded me an opportunity to study how the burr-combs are started, and the influence of a heavy top-bar.

When the top-bar is too narrow, the combs below are necessarily wider (No. 9); then the bees extend them along the top-bar (No. 10), and finally above it (No. 11). If the top-bars are very thick, the comb extension may be stopt before reaching the top (No. 12), and not go any further.





If there is more than a bee-space between the supers and brood-frames, and the bees are lacking space, or cannot work in the supers on account of the weather being too cold, they may start burr-combs independently from the combs below.

If possible, only a bee-space should be left between the frames, and I then think that if the spacing of the frames were exact, and the combs all built in the center, there would be no burr-combs; but an exact regularity is not always attained, so I would advise a top-bar thick enough to prevent the extension of comb from reaching above (No. 12). At any rate, a top-bar less than ½ inch thick would not be stiff enough; ⅞ is better on account of holding the side-bars nailed at the ends.

Knox Co., Tenn.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

How to Class Sweet Clover Honey.

1. How can I class my sweet clover honey? Is it called first-class? Alfalfa honey is so very white, that everything else looks dark by comparison.

2. If honey is dark, but sealed over white, and looks very nice, is it clast as white?

COLORADO.

ANSWERS.—1. I hardly know just what the standing of sweet clover is, but I think it would be considered first-class. Certainly it would so far as color is concerned, but testimony is a little conflicting as to flavor. Some say there is nothing finer in flavor, and others condemn it, but probably the balance of testimony would be in its favor.

2. No, the honey must be white as well as the comb.

Rendering Old Combs into Wax.

What is the best way to render beeswax from old comb on a small scale?

OHIO.

ANSWER.—Probably nothing is better than a solar wax extractor, and for a small quantity a very cheap affair can be gotten up. A box covered over with a pane of glass, and inside of this an old dripping-pan with one corner torn open, and a dish underneath the dripping-pan to catch the melted wax that runs off the dripping-pan, and you have a solar wax-extractor. Of course the dripping-pan must be placed in a slanting position so that the wax will flow toward the split corner. The same dripping-pan may be used as a wax-extractor at any time when the sun is not shining. Put it in the oven of a cook-stove, leaving the oven door open, with the split corner projecting out, and a dish set on the kitchen floor to catch the melted wax.

Bees Working in the Supers.

1. July 3, as the bees in one of my hives had commenced to build comb on the top of the brood-frames, I put on a super as per instructions in the text-book. In one week they had eight or nine sections full and sealed over, so I raised the super and put an empty one under. They commenced to work in it all right, and each week since I have expected to find it half full, ready to put a third one under, but to-day (Aug. 14) I find only six sections capt over, and comb started in some of the others. In the top super there are 14 sections finisht, and comb started in a good many of the others. Now, what I want to find out is, should I take away the sections that have

been finisht four or five weeks, or should I leave them on the hive until the super is full?

2. I have two other hives that have plenty of bees, but they would not work in the super, altho they had commenced to put wax on the top-bar of the brood-frames five weeks ago. A week ago I thought I would try an experiment on them. I took the center section-holder out of the super of both hives. I then removed the bottom from each section, and nailed a thin, narrow piece of wood from one end to the other of the holder (to keep the sections in), and put it back in the super bottom side up. I thought with the open side of the section next to the top-bar of the brood-frame, the bees would surely go up, and on examining the hives to-day I found each of the four sections about half full of comb, and work started on both sides. I intend in a few days to turn that center holder right side up and put the pieces of sections back in place again. What do you think of the scheme? Is it a good one or not? CONNECTICUT.

ANSWERS.—1. If the honey is for your own use, and you care more for taste than looks, it will be no harm to let the sections remain till later in the season, only they must not be left on so late that the bees will carry the honey down to put in the brood-combs. Honey is not hurt, but rather improved in flavor by remaining in the hive, but the comb becomes darker in color, and your sections will be injured for market by remaining on the hive, for the general demand is for white-looking sections. If they are still storing honey, and you want to get the sections off before they are any darker, you can empty the two supers, sort out the sections that are finisht, then fill up one super with the sections that are partly finisht or empty, and return this super to the hive. But from your report of their work, it is doubtful whether they are storing enough to make it worth while to return the unfilled sections. A flow of fall honey, however, may come to change matters.

2. As the scheme succeeded in getting the bees to work in the sections when otherwise they seemed unwilling to do so, it was of value to you, but you might accomplish the same thing as well or better with a good deal less trouble. Put in the super a "bait" section, that is, a section that has been workt out partly, the comb being anywhere from one-fourth inch to an inch deep, whether there is honey in it or not. You will find such a section in the super an excellent persuader. If you don't happen to have anything of the kind, you may cut a bit of comb of any kind out of a brood-frame and fasten it in a section.

◆

Keeping Ants Out of Hives.

How can I get ants out of bee-hives? and how keep them out? IOWA.

ANSWER.—The simplest and easiest plan is to provide no comfortable place for the ants to which the bees themselves have no access. With the plan, now going out of use, of having quilts or sheets over the brood-frames, the ants have a nice retreat over the sheets. They probably make their nests there for the sake of the warmth, and do not trouble the bees except when the bee-keeper opens the hive, and then they trouble both bee-keeper and bees by running over both. Since giving up the use of quilts I have never known the ants to trouble my bees. A plain board-cover is the only thing over the bees, there being a space of a quarter of an inch between the top-bars and the cover. As the bees have full access to this space, they never allow an ant to enter. Until you find it convenient to change your plan of covers, you may take comfort in the thought that the ants really do little or no harm only when you have the hives open.

◆

When and How to Unite Bees.

1. What is the best month or time to unite bees?

2. After removing the queen, do you put the queenless bees with the hive containing the queen, or *vice versa*?

3. Cannot the bees be united by simply sprinkling both hives with sugar-water scented with essence of mint, by setting one hive on the top of the other, and drumming the bees up into the top hive? MARYLAND.

ANSWERS.—1. The best time is when bees are gathering honey. After all gathering has ceast for the season, bees are more intent on watching their stores, and every stranger is lookt upon as an intruder that should be expelled.

2. That amounts to asking on which stand the united colony shall be placed. On the stand where the queen has been. Move a colony of bees to a new place, and when the field-bees next make an excursion they will on their return go straight to the spot they have been always used to returning to, but if queenless bees are given to a colony having a queen they are so tickled at finding a mother that on first flying out many of them mark the location and return to it.

3. Yes, you don't need to take even that much trouble, for the queenless bees will find their way into the other hive without any drumming. One good way is this: Bring the queenless colony to the place where the queen is; put it under the hive with the queen, letting each have its own entrance, and put between the hives a piece of paper with a hole in it just large enough for one bee at a time to go from one hive to the other. The bees will do the rest, and will remove the paper as fast as desirable.

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Vol. XXXVII. CHICAGO, ILL., SEPT. 2, 1897. No. 35.

Editorial Comments.

The Buffalo Convention closed Thursday afternoon, Aug. 26, being one of the very best of the national meetings of bee-keepers ever held. The attendance was good, and the interest most excellent throughout.

With the exception of the election of W. Z. Hutchinson as Vice-President, the officers elected are the same as the past year.

We expect soon to begin the publication of the report, and will endeavor next week to give some convention comments.

◆

Bee-Keeping in Arizona.—A recent issue of The Star—an Arizona newspaper—contained the following regarding honey-production in that part of the United States:

> It is stated that there will be shipt from the Salt River Valley this year over 800,000 pounds of honey produced in that section. This seems almost incredible, when it is known that 20 years ago there was not a honey-bee in this territory, and the myriads of swarms now doing business in every section of Arizona, and all the product of two swarms brought from San Diego in 1877. The mountains are also said to be swarming with these little workers. Caves, trees, and, betimes, the catclaw bush, are utilized as the home of these factors of civilization.
>
> In the valleys where alfalfa is not produced, the mesquite, catclaw, and the various species of the cacti furnish abundance of sweet liquid for honey-production, so that bee-keeping is quite a profitable industry in all sections of the territory. It is estimated that Pima county has two or three thousand colonies. If this industry was developt to its highest profitable limit in this section, there ought to be 10,000 or 15,000 colonies. Mountain and mesquite forests could be utilized, as well as the agricultural spots in our valleys. If properly cared for there is much profit in the bee-industry.

These Editorial Paragraphs are taken from the Bee-Keepers' Review for August:

> BASSWOOD has been a failure in many localities—don't forget that in estimating the honey crop.
>
> QUEENS will be thrown out of the mails again unless some folks are more careful than they are in putting them up for shipment. Use a good strong cage, and be *sure* that the queen can't get out.
>
> WING VIBRATIONS OF BEES.—The Canadian Bee Journal copies from the Scientific American an extract from a very interesting illustrated article showing the rapidity of the wing vibrations in the flight of bees. The vibrations sometimes reach 15,540 strokes per minute.
>
> A FIGHT TO THE FINISH has always been the result when I put two laying queens together, and I have done this several times when Italianizing black and hybrid colonies. I mention this because the subject is being discust in the American Bee Journal.
>
> PACKING should never be so thick that the colony cannot get the benefit of the warmth when the day is pleasant and sunny, for, if the colony becomes weak and not able to heat the hive, it becomes to the bees a veritable refrigerator, says R. C. Aikin in the Canadian Bee Journal.
>
> THIS YEAR has been a good one for honey in most localities, but not in all. It is true that supply dealers have had the biggest trade they ever had; but this *alone* ought not to lead to a decision that there has been such an enormous crop, as the poor seasons that preceded this one have discouraged the buying of supplies, and the present harvest caught most bee-keepers short of supplies. To allow dealers to get the idea that there has been, universally, a very heavy crop, unless this is really true, might cause a needless tumble in prices.

◆

The Apiary of George and Wayne Roby, shown on the first page this week will be admired because of the youthfulness of its owners, if for no other reason. When sending us the photograph, "George" wrote us as follows:

> NEOSHO CO., Kans., July 26, 1897.
>
> MR. EDITOR:—I send you a sketch of myself and my brother "Walney;" also our little apiary of 40 colonies of bees. We are the "bee-kings" of this part of the country. I am 14 years old, and my brother is 9. We produced 1,600 pounds of honey last year. Our crop is a little light so far this year, but of very fine quaility. Our best honey-flow is in September, and we expect to have our dish right side up as usual. We take two good bee-papers, and we have two or three good books on bee-culture. Yours truly,
>
> GEORGE ROBY.

Hurrah for the little "bee-kings!" Long may they live, and greatly may they prosper.

◆

The Best Marketing of Crops is getting to be more and more of a puzzling question with all kinds of country producers. Bee-keepers are beginning to realize something of the magnitude and importance of the question. Here is something taken from the Field and Farm—a Colorado farm journal—that contains some most excellent and timely advice:

> When a crop is produced, but half of the battle against all the evils of trade is won; and unless the farmer finds a good market his labor is lost, and the complaint is made that the farm does not pay. There are many leak-holes between the harvest and the market, by which the profits escape through carelessness; but the most important point, requiring constant vigilance, is the fluctuating scale of supply and demand. Many times the Western farmer and stockraiser loses his entire shipment of potatoes or sheep, and frequently receives a bill for freight, with the stereotyped "please remit" stampt upon the paper.
>
> There is no safety in relying upon the middle-men or agents of commission houses, because they give no guarantee of returns except such as the market assures on day of sale. The local merchants are not always justified in paying the value of produce, even in goods, for the reasons that they have not the capital to invest, nor facilities for watching the market. Direct shipments cannot be made to the market centers except by train or carload lots, and then experienced dealers must accompany the produce in order to realize the full benefits of all that the market returns. Individual mar-

keting has always proven disastrous to the general farmer because of lack of business tact and the small lots of produce he has to offer.

The only solution of the question of realizing all there is in the products of the farm lies in the proper practice of co-operative marketing. The Utah Mormons have constructed irrigation ditches, built up over 300 towns, and conquered vast areas of desert by co-operative exertions, fully demonstrating the fact that the principle is correct. In citing these facts, Joel Shoemaker asks: "Why not adopt the methods used in selling as well as in growing produce? Twenty farmers could band together and practically control the community. Five of the best qualified men acting as a board of directors could employ one of their own number as a manager, and transact the business with profit to the entire community."

This plan has workt admirably and profitably in several instances under our personal observation, and the efforts of those enterprising fruit-growers at Montrose, Delta and Grand Junction, in organizing local market associations, seems a very commendable movement. If it does not succeed as fully as some may hope for the first season or so, it is a step in the right direction, and must eventually lead to a better condition all along the line. There is much to be learned in this as in other things; and, after all, we of the new West need a good deal of schooling in most of our undertakings.

These Strawlets, among others, were furnisht Gleanings for Aug. 15, by Dr. Miller—the champion man-of-straws (or straw-man) in the ranks of bee-keepers:

> Wiesbaden is where the big convention of German bee-keepers will be. Wish I could be there!
>
> Alfred Austin, England's poet laureate, is a member of the Kent Bee-Keepers' Association—not an honorary member, but pays his subscription.
>
> Ants in hives. M. Guilleminot, in L'Apiculteur, says he is successful in getting rid of ants by first removing what he can of their nests, then sprinkling well with finely crusht soot.
>
> Did you ever notice that, in enlarging the brood-nest, the queen often lays first on the side of a fresh comb furthest from the brood-nest? I wonder why. [I never noticed it.—Ed.]
>
> The Belgian Government has issued an order that all railway embankments shall be covered with honey-plants.—Bienen-Vater. May be that will happen here, if the Government runs the railroads.
>
> The Argentine Republic, as reported by M. Michaut in Apiculteur, is a paradise for bee-keepers—no failures from drouth or moisture (except once in 12 or 15 years grasshoppers allow a quarter crop); no foul brood or other disease; no moth; abundant harvest for three months in the vast alfalfa fields, and an average yield of 75 pounds a colony at 3 cents a pound, and 3½ pounds of wax at 20 cents. Perhaps Prof. Bruner will tell us about it.

A House Full of Bees.—In a recent issue of the New York Witness, we find the following correspondence from Gale's Ferry, Conn., under date of June 27, telling about a very large quantity of bees:

> On the Centre Groton road, two miles from this village, is a large, old-fashioned house of cozy appearance, which is fairly dripping with honey. The dwelling is owned by Albert Bennett. It is fully 100 years old, and is so completely surrounded by cloverfields, groves of locust trees, and beds of old-fashioned flowers as to be very attractive to passers-by, as well as to bees. Nearly five years ago bees became so plentiful in the fertile tract that several swarms of them made their homes between the clapboards and lath of Mr. Bennett's house, near the peak of the west end, and since that time they have spread all over the house, until now they are troublesome in hot weather. A few days ago Mrs. Bennett left an attic room open for an hour or two, and upon her return found that a colony of the bees had crawled through a partition and swarmed in the room. They drove her from the apartment.
>
> During the years the bees have been living in the walls of the house, the crop of honey has been steadily accumulating, and it is now so abundant that, under the influence of the hot summer sun, it oozes out from under the clapboards in various places, and one has only to place vessels beneath to catch as fine a grade of extracted honey as is being stored in Connecticut to-day. Good judges of honey-gathering believe there is more than half a ton of honey and comb under the clapboard, and Mr. Bennett has consented (such a nuisance have the bees become) to have the crop harvested next fall. To do this it will be necessary to strip the clapboards off the house, and the job will have to be deferred until cold weather in order to avoid the risk of angering such a mass of bees.

Here's a fine chance for the Porters to try their honey-house bee-escape on a large scale! They might send a hundred or so to Mr. Bennett, and thus assist him to let out his big houseful of bees, so that he could wade in and help himself to the honey without being smothered by several bushels of the stings. Nothing like trying an experiment, you know

Advantage of Big Colonies.—The old apiarian proverb—"Keep all colonies strong"—contains sage advice. It doesn't take a bee-keeper many years to find out that the large, strong colonies are the ones that get the honey, if there is any at all to be had. Editor Root, in Gleanings, for Aug. 1, had this to say about big colonies:

> I have said a good deal regarding the advantage of large colonies being non-swarmers, and the kind that produce honey. Experience this season, as well as last, has pounded the fact into my head more firmly than ever before. The Dadants have long been exponents of big hives and big colonies; and while I believe they are exactly right in urging the importance of having powerful colonies of *bees*, I am not yet prepared to believe that a large hive all in one brood-nest is essential. During the past season we have secured largely the same result as do the Dadants, with our 2-story 8-framers; namely, no swarms and 100 pounds of extracted honey on the average, per colony, and 50 pounds of comb honey. The single-story 8-framers swarmed, and in some cases gave us 25 pounds. Hard facts and figures like these are worth a bushel of theories.

Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offers on page 551.

The Weekly Budget.

Mr. Geo. H. Stipp, of California, has sent us some very nicely illustrated pamphlets descriptive of Orange and Santa Clara counties, of that State. It's wonderful how Southern California is pictured and shown up now-a-days. Must be a fine country to visit.

Mr. J. T. Hairston, of Indian Territory, has favored us with a photographic view of a part of his apiary, consisting of about 40 colonies. Mr. Hairston is making a success of bee-keeping, and he deserves to.

Mr. M. H. Mendelson, of Ventura Co., Calif., it is reported, "has made the best exhibit of this season's production on display at the Los Angeles Chamber of Commerce." Mr. M. is the great bean-honey man of his State.

Pope Leo calls honey "that celestial gift." So Dr. Miller says in a straw in Gleanings. And Editor Root shows that he agrees with the pope in at least one thing, for he adds this: "The pope is right. No other sweet, pure and simple, can be used for direct consumption without some special manipulation on the part of man."

Mr. Eugene Wander, of Hartford Co., Conn., sent us a remittance Aug. 4, which pays his subscription to the end of the year 1900. He is the first one to so distinguish himself. But there is plenty of room for more just as prompt and generous as Mr. Wander. We hope many will follow his good example, and "Wander" along in the same pleasant way.

BEE-BOOKS

SENT POSTPAID BY

George W. York & Co.,

Chicago, Ills.

Bees and Honey, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages, and 245 illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold-lettered. Price, $1.00.

Langstroth on the Honey-Bee, revised by Dadant—This classic in bee-culture, has been entirely re-written, and is fully illustrated. It treats of everything relating to bees and bee-keeping. No apiarian library is complete without this standard work by Rev. L. L. Langstroth—the Father of American Bee-Culture. It has 520 pages; bound in cloth.

Price, postpaid, $1.25.

Bee-Keepers' Guide, or Manual of the Apiary, by Prof A. J Cook, of the Michigan Agricultural College.—This book is not only instructive and helpful as a guide in bee-keeping, but is interesting and thoroughly practical and scientific. It contains a full delineation of the anatomy and physiology of bees. 460 pages; bound in cloth and fully illustrated.

Price. postpaid, $1.25.

Scientific Queen-Rearing, as Practically Applied, by G. M. Doolittle.—A method by which the very best of Queen-Bees are reared in perfect accord with Nature's way. 176 pages, bound in cloth, and illustrated. Price, $1.00.

A B C of Bee-Culture, by A. I. Root.—A cyclopædia of 400 pages, describing everything pertaining to the care of the honey-bees. It contains 300 engravings. It was written especially for beginners Bound in cloth. Price, $1.25.

Advanced Bee-Culture, Its Methods and Management, by W Z. Hutchinson.—The author of this work is too well known to need further description of his book. He is a practical and entertaining writer. You should read his book. 90 pages, bound in paper, and illustrated. Price, 50 cts.

Rational Bee-Keeping, by Dr. John Dzierzon—This is a translation of his latest German book on bee-culture. It has 350 pages: bound in paper covers, $1.00

Bienen-Kultur, by Thomas G. Newman.—This is a German translation of the principal portion of the book called BEES OF HONEY. 100 page pamphlet. Price, 40 cents.

Convention Hand-Book, for Bee-Keepers. Thomas G. Newman.—It contains the parliamentary law and rules of order for Bee-Conventions—also Constitution and By-Laws, with subjects for discussion, etc. Cloth, gold-lettered. Price, 25 cts.

Thirty Years Among the Bees, by Henry Alley.—Gives the results of over a quarter-century's experience in rearing queen-bees. Very latest work of the kind. Nearly 100 pages. Price, 50c.

Why Eat Honey?—This Leaflet is intended for FREE distribution, to create a Local Market. 100 copies, by mail, 30 cts.: 500 for $1.25; 1000, $2.00.

How to Keep Honey and preserve its richness and flavor. Price same as Why Eat Honey.

Alsike Clover Leaflet.—Full directions for growing. 50 for 25 cts.; 100 for 40 cts.; 200, 70c.

Apiary Register, by Thos. G. Newman.—Devotes two pages to a colony. Leather binding. Price, for 50 colonies, $1.00; for 100 colonies, $1.25.

Preparation of Honey for the Market, including the production and care of comb and extracted honey. A chapter from BEES AND HONEY. Price, 10 cents

Bee-Pasturage a Necessity.—This book suggests what and how to plant. It is a chapter from BEES AND HONEY Price, 10 cents.

The Hive I Use, by G. M. Doolittle. It details his management of bees, and methods of producing comb honey. Price, 5 cents.

Dr. Howard's Book on Foul Brood.—Gives the McEvoy Treatment and reviews the experiments of others. Price, 25 cts.

Silo and Silage, by Prof. A. J. Cook.—It gives the method in operation at the Michigan Agricultural College. Price, 25 cts.

Winter Problem in Bee-Keeping, by G. R. Pierce. Result of 25 years' experience. 30 cts.

Handling Bees, by Chas. Dadant & Son.—A Chapter from Langstroth Revised. Price, 8 cts.

History of Bee-Associations, and Brief Reports of the first 20 conventions. Price

Foul Brood Treatment, by Prof. F. R. Cheshire.—Its Cause and Prevention. Price, 10 cts.

Foul Brood, by A. R. Kohnke.—Origin. Development and Cure. Price 10 cts.

Practical Hints to Bee-Kee-Keepers—by CHAS. F. MUTH. Also contains a Foul Brood Cure and How to Winter Bees. 40 p.; 10 cts.

Bee-Keeping for Profit, by Dr. G. L. Tinker.—Revised and enlarged. It details the author's "new system, or how to get the largest yields of comb or extracted honey." 80 p.; illustrated. 25c.

Emerson Binders, made especially for the BEE JOURNAL, are convenient for preserving each number as fast as received. Not mailable to Canada. Price, 75 cts.

Commercial Calculator, by C. Ropp.—A ready Calculator, Business Arithmetic and Account-Book combined in one. Every farmer and business man should have it. No. 1, bound in water proof leatherette, calf finish. Price, 40 cts. No. 2 in fine artificial leather, with pocket, silicate slate, and account-book. Price, 60 cts.

Green's Four Books, by Chas. A. Green.—Devoted to, 1st, How We Made the Old Farm Pay; 2nd, Peach Culture; 3rd, How to Propagate Fruit-Plants, Vines and Trees; 4th, General Fruit Instructor. Nearly 120 pages. Fully illustrated. 25 cts.

Garden and Orchard, by Chas. A. Green.—Gives full instructions in Thinning and Marketing Fruits; Pruning, Planting and Cultivating; Spraying, Evaporation, Cold Storage, Etc. 94 pages, illustrated Price, 25 cts.

Kendall's Horse-Book.—35 pictures, showing positions of sick horses, and treats on all their diseases. English or German. Price, 25 cts.

Lumber and Log-Book.—Gives measurements of lumber, logs planks; wages, etc. 25c.

Maple Sugar and the Sugar Bush, by Prof. A. J. Cook.—Full instructions. Price, 35 cts.

Grain Tables, for casting up the price of grain, produce, hay, etc. Price, 25 cts.

Capons and Caponizing, by Dr. Sawyer, Fanny Field, and others.—Illustrated. All about caponizing fowls, and thus how to make the most money in poultry-raising. 64 pages. Price, 30 cts.

Our Poultry Doctor, or Health in the Poultry Yard and How to Cure Sick Fowls, by Fanny Field.—Everything about Poultry Diseases and their Cure. 64 pages. Price, 30 cts.

Poultry for Market and Poultry for Profit, by Fanny Field.—Tells everything about the Poultry Business. 64 pages. Price, 25 cts.

Turkeys for Market and Turkeys for Profit, by Fanny Field.—All about Turkey-Raising. 64 pages. Price, 25 cts.

Rural Life.—Bees. Poultry, Fruits, Vegetables, and Household Matters. 100 pages. 25 cts.

Potato Culture, by T. B. Terry.—It tells how to grow them profitably. Price, 40 cts.

Hand-Book of Health, by Dr. Foote.—Hints about eating, drinking, etc. Price, 25 cts.

Bee-Keepers' Directory, by H. Alley.—Latest methods in Queen-Rearing, etc. Price, 50c.

Book Clubbing Offers.

(Read Carefully.)

The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only ONE book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted, see postpaid prices given with the description of the books on this page. Following is the clubbing-list:

1.	Langstroth on the Honey-Bee	$2.00
2.	A B C of Bee-Culture	2.00
3.	Bee-Keeper's Guide	1.75
4.	Bees and Honey [Cloth bound]	1.65
5.	Doolittle's Scientific Queen-Rearing	1.75
6.	Dr. Howard's Foul Brood Book	1.10
7.	Advanced Bee-Culture	1.30
9.	Bienen-Kultur [German]	1.20
11.	Rational Bee-Keeping [Paper bound]	1.75
12.	Thirty Years Among the Bees	1.30
13.	Bee-Keeping for Profit	1.15
14.	Convention Hand-Book	1.15
15.	Poultry for Market and Profit	1.10
16.	Turkeys for Market and Profit	1.10
17.	Capons and Caponizing	1.10
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24.	Emerson Binder for the Bee Journal	1.60
25.	Commercial Calculator, No. 1	1.25
26.	Commercial Calculator, No. 2	1.40
27.	Kendall's Horse-Book	1.10
30.	Potato Culture	1.20
32.	Hand-Book of Health	1.10
33.	Dictionary of Apiculture	1.35
34.	Maple Sugar and the Sugar Bush	1.20
35.	Silo and Silage	1.10
36.	Winter Problem in Bee-Keeping	1.30
37.	Apiary Register (for 50 colonies)	1.75
38.	Apiary Register (for 100 colonies)	2.00
39.	Bee-Keepers' Directory	1.30

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We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
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Sweet Clover (white)	.60	1.00	2.25	4.00
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Crimson Clover	.55	.90	2.00	3.50

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50 CENTS EACH

My new [1897] book on Queen-Rearing will give a method for rearing Queens in the brood-chamber while the queen is present. Mailed free to all who purchase Queens.

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Wenham, Mass.
32A4

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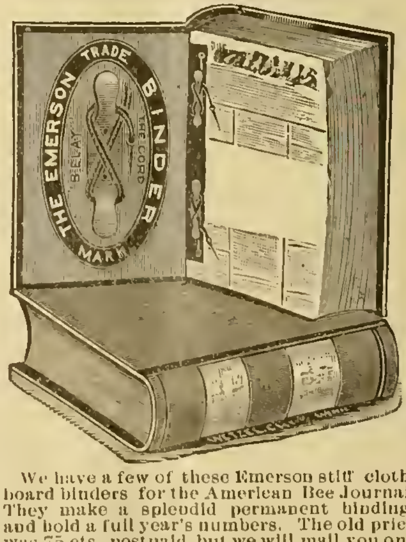

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Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Exposing Eggs and Larvæ.

Query 59.—1. To what degree of temperature can one safely expose [for two minutes or so, whilst manipulating combs for queen-rearing, etc.] eggs and larvæ? Ditto sealed queen-cells. Doolittle—in his admirable little work on queen-rearing—advises not to expose them to a temperature of under 85 degrees. Is not this quite unnecessarily high? There are weeks at a stretch when the mercury does not reach 85 degrees, and consequently manipulations in connection with queen-rearing, and other matters, are liable to be disastrously delayed.

2. Do the direct rays of the sun, falling momentarily on the combs during operations, kill young larvæ?—S. A.

Mrs. L. Harrison—1. I can't say; probably 65°. 2. No.

R. L. Taylor—1 and 2. I do not think 50° for five minutes would do serious injury to either.

W G. Larrabee—1. I am quite sure they can be exposed at a lower temperature than 85°. 2. No.

Prof. A. J. Cook—I think it safe to expose for two minutes much below 85°. I could not give the exact point.

H. D. Cutting—1. Doolittle is good. Yet I have been successful at a lower temperature. But a great deal depends upon how you do it. 2. No.

A. F. Brown—1. I have handled combs of brood in all necessary manipulations for queen-rearing when the mercury stood at 60° to 65°, and saw no harmful results. 2. No.

Dr. C. C. Miller—1 and 2. I don't know much about it, but if the exposure is only for two minutes I shouldn't feel much afraid of 60°. But I'd rather have Doolittle's 85°.

Eugene Secor—1. It seems to me that Mr. Doolittle's advice quoted above is unnecessarily conservative. I doubt if any harm comes of a hasty examination at 70°. 2. No, I don't believe it.

P. H. Elwood—1. They can safely be exposed for that length of time at the usual temperature of June, July and August. To raise the highest type of queens, there should be no chilling. 2. No.

J. E. Pond—1 and 2. Having never experimented in this direction, I am unable to give an answer that would be other than a guess, and, although a "Yankee," I do not advertise myself as a good guesser.

Rev. M. Mahin—1. I would not hesitate to expose eggs, larvæ and queen-cells, for a short time, in a temperature of 70°; but I would not like to keep them out of the hive very long at that temperature. 2. No.

Dr. J. P. H. Brown—1. Doolittle gives a safe temperature. You can do most of the operations, such as preparing the brood, in a warm room. 2. Falling "momentarily," they would not hurt; but a minute or two *would kill*.

C. H. Dibbern—1. I do not know; but I do not consider such manipulation in a temperature of 60° and above, at all injurious. I have great respect for Doo-

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Couldn't Do Without It.

I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now. DR. GEO. LACKE, Newburgh, Ind.

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little's opinion, but I think he is a little "off" in this case. 2. No.

J. A. Green—1. In practice I do not think a temperature of 70° for a moment or two is injurious, provided they remain in the comb. If handling larvæ only, or queen-cells, I should prefer to have it a little warmer. 2. No, but a prolonged exposure will.

G. W. Demaree—1 and 2. There is lots of squeamishness in these queries. Good judgment and that sort of *care* that every modern apiarist ought to have in his business, is all that is necessary, when manipulating bees for the purposes mentioned in the queries.

Emerson T. Abbott—1. I do not know. I have a way of moving them around whenever occasion demands, and I will make a guess that it is perfectly safe to do so when it is warm enough for bees to fly comfortably. 2. I should not expose young brood to the direct rays of the sun very long.

Chas. Dadant & Son—1 and 2. We have never had any trouble, and yet we know of having kept such comb exposed to the air at 65° or 75° for 5 or 10 minutes. We would not expose combs unnecessarily, but would not stop from manipulations in ordinary bee-flying weather, on that score.

Dr. A. B. Mason—1. Eggs and larvæ can be safely exposed to a much higher degree of heat than 85° without being injured, and also to 20° less than 85°. Sealed queen-cells can be exposed to both higher and lower temperature than can eggs and larvæ, without injury. 2. Not if not too hot, nor too cold.

J. M. Hambaugh—1. I have always considered 70° safe for exposure of brood, and I believe no bad results would occur from 68° for a two-minute exposure; 85° is surely unnecessarily high. 2. Direct reflection of the sun's rays upon unsealed brood is dangerous, though a moment might not hurt.

J. A. Stone—1. I do not know, and consequently took no chances. When compelled to handle, if cool, I exposed them as little as possible, and had my sealed queen-cells in a small box, and kept it in my inside pocket. 2. I believe the heat from the sun, that would affect the larvæ, would melt down the combs.

E. France—1. As long as the temperature is not high enough to soften the combs, there is no danger of killing the brood. In my experience, handling combs of brood during the extracting season, I know that I have had thousands of combs of brood out of the hives more than 10 minutes, with the temperature as low as 50°. 2. No.

G. M. Doolittle—1. I wonder where S. A. lives. I supposed central New York was cool enough, but "weeks at a stretch" between May 20 and Sept. 20 without the mercury going to 85° never happens here, and queens reared outside of those dates are about worthless. I have had fair success manipulating larvæ in a temperature of 73° to 75°, but from 85° to 90° is better. The breeding temperature inside the hive is from 93 to 98°, and the nearer we come to that, the better success and the better queens. See? 2. No.

* * *

See the premium offers on page 551!

Foundation —Sections— Hives or any Other Supplies.

If you are in a **rush**, send me your order. I sell **the best only**, and fill orders promptly at LOWEST PRICE. **Beeswax wanted in exchange.**

Working Wax into Foundation for CASH A Specialty.

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GUS DITTMER,
AUGUSTA, WIS.

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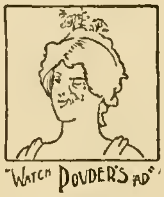

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Being the cleanest is usually worked the quickest of any Foundation made

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Sole Manufacturer,
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They Combine the Virtues of a Medicine Chest.

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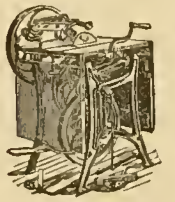

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Can do the work of four men using hand tools, in Ripping, Cutting-off, Mitring, Rabbeting, Grooving, Gaining, Dadoing, Edging-up, Jointing Stuff, etc. Full Line of Foot and Hand Power Machinery. Sold on Trial. Catalogue Free.

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General Items.

Has Quite a Crop of Honey.

I have quite a honey crop—4,200 pounds—and the bees still at work. I will have quite a good deal to take off yet. The next thing is where to sell. I am having good results selling at home so far, but I do not think the home trade will take as much as I have.

MRS. A. A. SIMPSON.
Greene Co., Pa., Aug. 19.

* * *

Season Like Good Old Times.

I am glad to report that it begins to seem like good old times in Iowa again for honey. We had a fine crop of white clover, and our bees, as a rule, did extra well on it. The prospect for a fall crop, I think, is good, if the weather should prove all right, for we have a big growth of heart's-ease and other fall flowers. What we need is warm weather and some rain.

J. W. SANDERS.
Marshall Co., Iowa, Aug. 19.

* * *

Fair Crop—New Union.

Bee-keepers in this valley have secured a fair crop of honey (mostly comb) of good quality, and are now debating as to where is the best market.

Several of us had quite a little experience with Horrie & Co. two years ago, which we are not likely to forget soon. Success to the New Union. We hope to send several membership fees soon.

W. C. GATHRIGHT.
Dona Ana Co., New Mex., Aug. 9.

* * *

Down with the Frauds.

EDITOR YORK:—I think you are working along the right line, as regards honey-adulterators. You cannot be too severe on any class of people that deliberately defraud their fellow-men for the sake of personal gain.

I wish all periodicals throughout the United States were as careful about allowing dishonorable advertisers space, as the American Bee Journal is. We should soon have a cleaner class of literature, as well as business men.

O. B. GRIFFIN.
Aroostook Co., Maine, Aug. 12.

* * *

Toads Fond of Bees.

S. V. Hall of Chautauqua Co., N.Y., has learned that toads like bees. "Every night," says Mr. Hall, "when I have gone out about sundown to shut the hen-house I have noticed a large toad sitting in front of one of my hives of bees, the one nearest the walk, and I was careful not to molest him, because I have always protected toads on my place on account of their usefulness in destroying troublesome insects. I have observed that for a few evenings toad No. 1 had a companion, but until last night I never thought to investigate as to what food my toads fed on in that particular spot.

I stopt to watch and I soon learned all about it. The hive, under which they burrowed in cool retirement in the daytime and in front of which they took up sentinel positions in the early evening, stood on the ground, with only a board between it and the sod. The board projected in front of the hive about three inches, so as to afford the bees a convenient place for alighting. While I watcht the bees arriving home last night, heavily laden with honey, I saw those two toads shoot out their long slim, slimy tongues and capture every bee.

I did not wait to see them eat many before I killed them both. I dissected one and found his stomach full of bees whole and others in various stages of digestion.

I estimated that those winking, blinking toads have been devouring fifty or sixty a day. I had supposed that the honey-makers' stings would protect them from such a fate.

"The toads as gourmands certainly manifested an interesting intelligence in forsaking the garden with its chance bugs for this certain provision of choice tid-bits, but I failed to appreciate it."—Exchange.

Season Wet and Cold.

I have 28 colonies. The season has been wet and cold. I have not taken off any surplus honey yet. There is some honey in the sections, and I expect to take off some soon. A. F. Lunt.
Androscoggin Co., Maine, Aug. 14.

Fair Season this Year.

This is my third summer here. I came here on account of my health, from New Hampshire, and you may remember I am one of the few who have taken the American Bee Journal from the first number. I was in your office and enjoyed a call on you in March, 1893. The first two summers here I had the care of an apiary of about 50 colonies. We are having a fair season this year. J. L. Hubbard.
Henderson Co., N. C., Aug. 16.

Bees Have Done Poorly.

Bees hereabout have done very poorly this year. I do not think I shall harvest more than one-third as much per colony as I did last year. The spring was backward, and everything late. Besides, I suspect that this neighborhood is overstockt—there are probably, within a radius of six miles, nearly 1,000 colonies of bees. So, with a small crop, and a gold standard, which grows in value all the time, the outlook for farmers and small bee-keepers is anything but golden. And the end is not yet. Albert Baxter.
Muskegon Co., Mich., Aug. 17.

Growing Basswood, Clipping Queens

I have had a little experience with basswood seed. In the fall of 1893 I put some basswood seed in a pan, and covered with soil. I watcht them, but they did not sprout any till the spring of 1895. I then planted them but the dry weather killed them. Then in the spring of 1896 40 or 50 came up, and last spring it seems as if more seed came up than was planted in the first place.

This has been a good honey-year, tho I have seen it lots better. The white clover was a very good crop. I think if the clover improves as much as it has done, by another year it will be as good as it ever was.

That queen-clipping device is a dandy. I wouldn't take $5.00 for it. Since I commenced to clip the queens' wings I have never had a swarm go away. I had one swarm go out of sight this year, but it came back again. Putting brood in the hive seemed to make them go away sooner.

In the spring I had 89 colonies, and now 135. I have taken off 5,000 pounds of extracted honey, and 1,000 pounds of comb honey, with a good prospect for fall honey. Chas. Blackburn.
Buchanan Co., Iowa, Aug. 14.

Cash PAID FOR Beeswax

For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 24 cents per pound, CASH; or 27 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly,** for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,

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We want the name and address of every Bee-Keeper in **America.** We supply Dealers as well as consumers. We have Dry Kiln, Improved Machinery, 40 000 feet of floor space, and all modern appliances. We make prompt shipment.

Write for Catalogs, Quotations, etc.

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Please mention Bee Journal when writing.

Beautiful Honey-Cases
Made by the A. I. Root Co., at their prices.
Beeswax Wanted.
M. H. HUNT, Bell Branch, Mich.
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BEE-KEEPERS! Let me send you my 64-page Catalog for 1897.
J. M. Jenkins, Wetumpka, Ala.

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Full Colonies for Sale
—FINE ITALIAN-HYBRIDS—

30 miles northwest of Chicago, in 9-frame Langstroth hives. Bees in good condition. Only a few colonies Too warm to ship long distance. Prices—$5.00 per colony; 5 colonies, at $4.75 each; or 10 colonies at $4.50 each.

GEORGE W. YORK & CO.,
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Golden Beauties and 3-Banded
Or IMPORTED STOCK.
Silver-Gray Carniolans.
Untested, 50c.; Tested, 75c. Safe arrival guaranteed. Address.
Judge E. Y. TERRAL & CO.
26Atf CAMERON, TEXAS.
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500 Choice Italian
—BUSINESS QUEENS—

Ready to send by return mail. Untested Queens, 50 cts. each; ½ doz., $2.80. Tested, 70 cts. Special rates on large orders.
Address, **LEININGER BROS.,**
29Dtf FT. JENNINGS, OHIO.
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THROAT AND LUNG DISEASES,
DR. PEIRO, Specialist
Offices: 1019, 100 State St.,
CHICAGO. Hours 9 to 4.
Please mention Bee Journal when writing.

A Bad Mix-up.

Here is one man who makes whisky; another who sells it; another who rents a house for the sale of it; another who votes with a party to license it; another who dies drunk. Now if you can fix that up so that some of that crowd will go to heaven and some to hell, you are a profounder philosopher than ever I have been.—Plain Dealer.

Watch Your Words.

Keep watch on your words, my children,
For words are wonderful things,
They are sweet, like the bees' fresh honey,
Like bees, they have terrible stings;
They can bless like the warm glad sunshine,
And brighten the lonely life;
They can cut in the strife of anger
Like an open, two-edged knife.—*Selected.*

Report for the Season So Far.

This season was wet and windy in May, and June was hot and dry. The honey-flow from clover was light, altho fair from sweet clover the latter part of June. I commenced the season with 43 colonies, 2 queenless May 15. I increast to 80 colonies by natural swarming. I did not run the non-swarmers this season, as I wisht to increase my number of colonies. I took off 2,200 pounds of white clover comb honey, in one-pound sections and more to take off yet, the supers being left on to be finisht from Spanish-needle. Of extracted I have not taken off more than 100 pounds. John Conser.
Pettis Co., Mo., Aug. 12.

Honey Crop Almost a Failure.

The honey crop in this State is almost a total failure. We would be glad if the bees would get enough for winter stores, not saying anything about surplus—even honey-dew would be acceptable. Many of my strongest colonies have not one ounce of honey in their hives, but are plump full of bees and brood, and about 60 acres of buckwheat in full bloom within a mile of them, also any amount of asters, golden-rod and many other honey-bearing flowers. The stubble-fields are covered with wild buckwheat, but I have not seen a bee on it. Some years it yields heavily, but this year the flowers yield but little honey. I never saw it so in 28 years of my bee-keeping. C. Theilmann.
Wabasha Co., Minn., Aug. 12.

Bee-Keeper's Guide—see page 560.

Employ Nature

The best physician to heal your ills. Send for FREE Pamphlet explaining how diseases of the Blood, Skin, Liver, Kidneys and Lungs can be cured without drugs.

F. M. SPRINGS CO.,
Lock Box No. 1 **LIBERTYVILLE, ILL.**
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—A GENUINE—

Egg Preservative

That will keep Hen's Eggs perfectly through warm weather, just as good as fresh ones for cooking and frosting. One man paid 10 cents a dozen for the eggs he preserved, and then later sold them for 25 cents a dozen. You can preserve them for about **1 cent per dozen.** Now is the time to do it, while eggs are cheap.

Address for Circular giving further information—

Dr. A. B. MASON,
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For a limited time we wish to make our readers a **special offer** on booklets on Bees, Poultry, Health, etc. Upon receipt of 75 **cents** we will mail any 6 of the list below: and **for $1.25** we will mail the **whole dozen**:

1. Foul Brood, by Dr. Howard............ 25c
2. Poultry for Market and Profit........ 25c
3. Turkeys for Market and Profit.. . .. 25c
4. Our Poultry Doctor...... .... 30c
5. Capons and Caponizing................ 30c
6. Hand-Book of Health, by Dr. Foote.. 25c
7. Kendall's Horse-Book 25c
8. Rural Life............................ 25c
9. Ropp's Commercial Calculator........ 25c
10. Foul Brood, by Kohnke.......... .... 10c
11. Silo and Silage, by Prof Cook.......... 25c
12. Bienen-Kultur, by Newman........... 40c

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Bee-Hives, Sections, Shipping-Cases—everything used by bee-keepers. Orders filled promptly. Send for catalog MINNESOTA BEE-KEEPERS' SUPPLY MFG. CO., Nicollet Island, Minneapolis, Minn.
22Atf CHAS. MONDENG, Mgr.
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FOR SALE.

1000 pounds of White Clover Comb Honey.
Price, 11 cts. per pound.
600 lbs. White Clover Honey at 7c. per pound.
28A **Edw. E. Smith, Carpenter, Ill.**
Please mention Bee Journal when writing.

Italian Queens **By Return Mail.**

Untested, 50c.; Tested, $1.00.
Nuclei, 2 frame, $1.35, including a good Queen
E. L. CARRINGTON,
22Atf **De Funiak Springs, Fla.**
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Minnesota.—The third annual meeting of the Southern Minnesota Bee-Keepers' Association will be held in Winona, Wednesday and Thursday, Sept. 15 and 16, 1897, opening at 9 o'clock, a.m., each day. All are cordially invited to come and bring their friends.

Winona, Minn. E. C. CORNWELL, Sec.

$250 IN GOLD GIVEN AWAY FREE.

AN EDUCATIONAL CONTEST FULL OF INSTRUCTION AND AMUSEMENT FOR BOTH YOUNG AND OLD.

THIS CONTEST CLOSES DECEMBER 1st, 1897.

Winners will be announced in the December number of the **Home Companion**, so to insure the receipt of prize which will be sent **to every contestant** answers should be sent in at once.

HOW TO ENTER THIS CONTEST

and secure a chance to win one of the first **One Hundred Prizes**, and also receive by return mail the handsome new book, "**Up-to-date Superstition**" the latest and most interesting book of the day, now having an enormous sale. Contains palmistry, character reading, date of birth and definitions of love. Lots of fun.

These questions are numbered; fill out your **answers** and number them to correspond with the questions. **Enclose** them with your name and full address and 25 cents (in stamps or silver) to pay for one yearly subscription to the splendid Monthly Magazine, the "**Home Companion,**" and send to us at once.

REMEMBER EVERY CONTESTANT GETS A PRIZE.

The first three persons sending a correct answer will each receive a **Twenty Dollar Gold Piece**; the **next 12** will receive a **Five Dollar Gold Piece**; the **next 35** will receive a brand new **Two Dollar Bill**, and the **next 50** will receive a beautiful **Watch**, nicely packed in a case. **Hurry** in your answers—you may be the first to have them all correct. Prizes will be awarded by disinterested judges, and we refer to any mercantile agency as to our reliability.

1. A—Is the first letter in the name of a late President of the United States.
2. B— " " " " an American animal almost extinct.
3. C— " " " " a domestic animal fond of milk.
4. D— " " " " the author of Robinson Crusoe.
5. E— " " " " the most famous living inventor in America.
6. F— " " " " the man who laid the Atlantic cable.
7. G— " " " " the country that conquered France.
8. H— " " " " a popular family story paper.
9. I— " " " " a race occupying considerable space in the history of the United States.
10. J—Is the first letter in the name of a city in Mississippi, named for a President of the United States.
11. K—Is the first letter in the name of a territory just now occupying the attention o' the United States and foreign countries.
12. L—Is the first letter in the name of the author of Evangeline.
13. M— " " " " the inventor of the telegraph.
14. N— " " " " a famous French General.
15. O— " " " " a constellation.
16. P— " " " " two rivers in Maine.
17. Q— " " " " a city in South America.
18. R— " " " " a celebrated river noted for its ruins.
19. S— " " " " a giant who was set to grinding a mill.
20. T— " " " " a city in Persia.
21. U— " " " " a horned animal, rarely seen.
22. V— " " " " a celebrated American yacht.
23. W— " " " " a Quaker poet.
24. X— " " " " a Grecian general and author.
25. Y— " " " " a river in China that often overflows the surrounding country.
26. Z—Is the first letter in the name of a mount in Judea.

Address all answers to
THE HOME COMPANION, - 100 William St., New York City.

The RURAL CALIFORNIAN

Tells all about Bees in California.

The Yields and Price of Honey; the Pasturage and Nectar-Producing Plants; the Bee-Ranches and how they are conducted. In fact the entire field is fully covered by and expert bee-man. Besides this, the paper also tells you all about **California Agriculture and Horticulture.** $1.50 per Year; Six Months, 75 cents. Sample Copies 10 cents.

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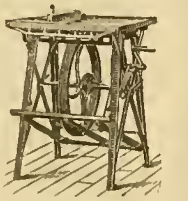

Barnes' Foot-Power Machinery.

Read what J. I. PARENT, of CHARLTON, N.Y., says—"We cut with one of your Combined Machines, last winter 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will. Catalogue and Price-List Free.

Address, W. F. & JOHN BARNES,
45Ctf No. 995 Ruby St., Rockford, Ill.
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ITALIAN QUEENS

By Return Mail.

Choice Tested at 65 cts. each; Untested at 50 cts. each, or $5.00 per dozen—from now to November 1st.

F. A. Crowell, Granger, Minn.
35A6t Please mention the Bee Journal.

Page Never Needs It.

GENTLEMEN: — When driving lately, I have noticed a neighbor repairing his fences. One day he was working on one made of ribbon wire with plank at top. At another time on one made of barb and plank at top. I stopt and askt him if he had repaired that fence, pointing to about 80 rods of Page that had been up four years or more. He said, "What fence, the Page?" I said "yes." He replied, "No, indeed! that never needs any, and I only wish my landlord would put it all over the farm, as it would save me much work that I have to do every spring." I told him I was glad I did not have any fence repairing, as my whole farm was enclosed, and fields divided with Page, and as I used nothing but red cedar and locust for posts, think it will be a long while before they will need replacing. I have no trouble to find my stock when turned out, as they are always in their place. Until I had all Page I had much trouble to keep mine home and others out,

HENRY RIEMAN.
Tunis Mills, Md.

The American Poultry Journal,

325 DEARBORN ST.,
CHICAGO, - ILL.

A Journal that is over a quarter of a century old and is still growing must possess intrinsic merit of its own, and its field must be a valuable one.

Such is the American Poultry Journal. **50 cents a year.**

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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Aug. 9.—Fancy white 12c.; No. 1, 10 to 11c.; fancy amber, 9c.; No. 1, 7c.; fancy dark, 8c.; No 1, 7c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½c. Beeswax, 26 to 27c.

The offerings of comb honey are fully equal to the demand this week. The trade takes very sparingly of it during the fly time. There continues to be a light call for extracted, while for beeswax a steady demand continues.

Milwaukee, Wis., Aug. 14.—Fancy white, 12 to 13c.; No. 1, 10 to 11c; fancy amber, 8 to 10c.; No. 1, 7 to 8c.; fancy dark, 7 to 8c. Extracted, white, 5 to 6c.; amber, 4 to 4½c. Beeswax, 25 to 27c.

The remnants of old crop honey remaining are not very large, and mostly of common and medium quality, and such is very hard to sell at any price. There has been some new extracted received, but not of the BEST quality—think it was extracted too soon, as it is thin and watery, and not very salable. The demand is as good as usual at this season. Think we are safe in holding out encouragement to shippers that for the new crop of choice qualities of comb and extracted honey this market will give them as good results as any other.

Cincinnati, Ohio, Aug. 9.—Fancy white, 11 to 13c.; No. 1, 10 to 11c.; No. 1 amber, 7 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½ to 4c. Beeswax, 20 to 25c.

Demand is fair so far for best qualities of comb honey. We have hardly ever yet, at this time of the year, disposed of as much honey as we did this season. Arrivals have been liberal so far.

Albany, N. Y., July 31.—Fancy white, 11@12c.; fancy amber, 7@8c.; fancy dark, 6@8c.; white, extracted, 5c; dark, 4c.

But very little is doing in honey this month. There is a small stock of inferior comb honey on the market, and quite a little extracted. Bees are said to be doing nicely in this section.

Minneapolis, Minn., Aug. 9. — Fancy white, 11 to 13c.; No. 1, 10 to 11c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c; fancy dark, 8 to 9c.; No. 1 dark, 6 to 7c. Extracted, white, 5 to 6c. Beeswax, 23 to 25c.

Stocks comparatively bare. Fair demand. Goods here now would meet with good sales.

Detroit, Mich., Aug. 10—Fancy white, 11 to 12c.; No. 1 white, 10-11c. Extracted, white, 5 to 5½c. Beeswax, 25 to 26c.

No dark honey of this year's crop yet offered.

New York, N. Y., Aug. 9.—Fancy white, 12c.; No. 1, 11c.; fancy amber, 10c. Extracted, white, 5 to 5½c.; amber, 4½ to 4¾c. Beeswax, 26 to 27c.

There is some demand for new crop comb, and some lots we received sold at from 10 to 12c. a pound. Prices for new crop are not settled, as our market actually does not open up before about Sept. 1. Extracted: Market quiet and easy, with large supply from the South and California. We quote: California light amber, 4½ to 4¾c.; white, 5 to 5½c. Southern, 50 to 55c. a gallon, according to quality. Beeswax without change.

Kansas City, Mo., Aug. 10.—Fancy white, 13c.; No. 1, 11 to 12c.; fancy amber, 10 to 11c.; No. 1, 9 to 10c.; fancy dark, 8 to 9c.; No. 1, 7 to 8c. Extracted, white, 5 to 5½c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 25c.

There is very little demand for honey this hot weather, but will improve with cooler weather.

Indianapolis, Ind., Aug. 7.—Fancy white, 10 to 12½c.; No 1, 9 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c. Beeswax, 25 to 27c.

I have received several lots of comb honey which was billed to me as "fancy white," but on opening a case I found that it was fancy white next to the glass only, the rest being old soiled sections with crooked combs and dark honey. I don't know that the power of the press will ever reach this class of producers, but such goods have to be recrated and reweighed, and are not satisfactory after all.

Boston, Mass., Aug. 9. — Fancy white, 13c.; No. 1, 12c. Extracted, white, 6 to 7c.; amber, 5 to 6c. Beeswax, 27c.

New comb now arriving in small lots, but fully equal to the demand. Beeswax is wanted, and practically none here.

St. Louis, Mo., Aug. 9.—Fancy white, 12 to 12½c.; No. 1, 11 to 11½c.; fancy amber, 10 to 10½c.; No. 1, 9 to 9½c. fancy dark, 8 to 8½c.; No. 1, 5 to 7c. Extracted, white, 5 to 5¼c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 24 to 24½c.

The weather so far this season has been too warm for the free movement of honey, but with the present prices on sugar we think there should be a good demand for extracted honey at the above prices. One car of 24,000 pounds sold since our last quotation on basis of above prices. Beeswax finds ready sale at 24c. for prime, while choice stock brings a little more.

San Francisco, Calif., Aug. 4. — White comb, 1-lbs., 7 to 9c.; amber comb, 4 to 6c. Extracted, white, 4½ to 5c.; light amber, 3½ to 4c.; dark tule, 2¾c. Beeswax, fair to choice, 25-26c.

While the market is not especially weak, it is quiet. There is considerably more offering than can be accommodated with custom at full current figures. Only on local account are top prices obtainable, and the quantity required for home use is light. There are no excessive stocks of beeswax on the market, and not likely to be the current season.

Cleveland, Ohio, Aug. 10.—Fancy white, 12½ to 13c.; No. 1, 11 to 12c.; fancy amber, 9c. Extracted, white, 6 to 7c.

Very little new honey in the merket. The demand for new honey the past week was fairly well thus early in the season. No demand for old honey whatever.

Buffalo, N. Y., Aug 9.—Fancy white, 11 to 12c.; No. 1, 9 to 10c., fancy amber, 7 to 8c.; No. 1, 6½ to 7c.; fancy dark, 5 to 7c; No. 1 5 to 7c. Extracted white, 5 to 6c.; amber, 4½ to 5c.; dark, 4 to 4½c. Beeswax, 23 to 28c.

Moderate demand for any grade. Better hold till October, when we can place liberal quantities.

Philadelphia, Pa., Aug 10.—Fancy white, 12 to 13c; No 1, 11 to 12c.; fancy amber, 10 to 11c.; No. 1, 9c.; fancy dark, 8c.; No. 1, 6 to 7c. Extracted, white, 5 to 6c.; amber, 4 to 5c; dark, 4c. Beeswax, 25c.

Honey arriving freely. But little demand during this hot weather. California honey already bearing down the market.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN.
120 & 122 W. Broadway.

Kansas City, Mo.
C. C. CLEMONS & CO., 423 Walnut St

Buffalo, N. Y.
BATTERSON & CO., 167 & 169 Scott St

Hamilton, Ills.
CHAS. DADANT & SON.

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WM. A. SELSER, 10 Vine St.

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A. B. WILLIAMS & CO., 80 & 82 Broadway.

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Boston, Mass.
BLAKE, SCOTT & LEE., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
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Doctor's Hints

By Dr. PEIRO.

Central Music Hall, · CHICAGO, ILL.

Pork Diseases.—I know that I am treading hallowed ground in objecting to the "American diet"—pork—in all its various preparations, but the truth, as I see it, may just as well be told here and now as to evade the responsibility that has been entrusted to me. I do so with cowardly hesitancy, because I confess to an epicurean taste for a nice bit of broiled ham, cured and cookt as I know at least one woman can; or a morsel of such delicious roast pork, with the very flavor of spring chicken, that I have indulged in at certain tables. But, as I before suggested, these retrospective pleasures should be no bar against an honest presentation of facts.

The Jews of old had the more practical theory regarding the flesh of at that time the "razor-back" rooters, and tho the breed has been greatly improved in appearance and commercial value it is the same old hog, with all his filthy practices.

Its fat so universally used, is, beyond question, the most indigestible substance our innocent stomachs are imposed with, and in the chemical ferment it has to undergo, directly and indirectly, certain manifestations of greater or less severity occur in by far the largest number of those who habitually use the substance of this bristly animal. Of course, the visible, and most tangible evidences of results do not follow the same day, month or year, and thereat we take courage, but that it does come need not be doubted. Nor is this all; but do you know that we morally approach in character the very beast we feed on? The man or woman who entirely abstains from it is more esthetically refined, intellectually superior. Don't believe it, eh? Well it is so, nevertheless. Indeed, to use no kinds of meat would eventuate in vast improvement in the race in the course of a few generations.

Just glance at some of the results that may reasonably be traced to the use of pork. Indigestion or chronic dyspepsia, with all its attendant complications—constipation, rheumatism, weak back, and some kidney troubles. Then there are some of the most troublesome skin diseases, not to mention pimples, tumors abscesses, resulting from impaired purity of the blood. Further on are certain forms of bone diseases, of which hip-joint is a frequent and lamentable example. These conditions are usually of scrofulous taint, literally, "hog diseases," since scrofa is latin for hog.

I do not expect that the exhibition of these facts will at once annihilate the provision market, materially affect the butchering business, or stop the raising of herds of swine, but the hint may fall into some fruitful (soul) soil, and bring forth the fruits of sounder, and a more intelligent and comely posterity.

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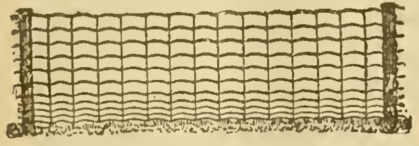

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Last year we told of a Michigan agent who could walk over 35 adjoining farms, all using **Page** fence. This year's sales have increased the number to **51**, with only one exception These farmers have known the Page for many years—would they keep on buying if not satisfied it was the **best** and **cheapest?** Write us for proof.

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An Unsolicited Testimonial! The following editorial appears in the Bee-Keepers' Review for August; and altho the **No-Drip Shipping Case** idea is old, we believe we were the first to bring it prominently before the public. We introduced it in the summer of 1896. Well, now read what the editor of the Review says:

> "**Shipping-Cases of the No-Drip Style** are decidedly superior to the old style in which the honey, if any drips from the combs, and this very frequently happens, runs out through the bottom of the case and daubs the top of the under case. Dirt and dust stick to this honey, and give the cases a very untidy appearance. The no-drip case prevents all this. I used 250 cases last year, and carted them around to five State fairs, and only those who have been through such experiences with the old style of case know the comfort experienced in handling dry, clean cases at all times. If any one experiences any trouble in folding up the paper tray that goes in the bottom, let him make a board about one-eighth of an inch, or a trifle more, smaller than the inside of the case. Place the sheet of paper on top of the case, lay on the board, forcing the paper to the bottom of the case. A nail driven into the upper side of the board will furnish a handle for removing the board. The lower corners of the board may need rounding off to prevent their puncturing the paper. It may require a little patience and practice to get the board just right and to learn how to use it, but the neatness and dispatch that follow will amply repay the trouble."

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37th Year. CHICAGO, ILL., SEPTEMBER 9, 1897. No. 36.

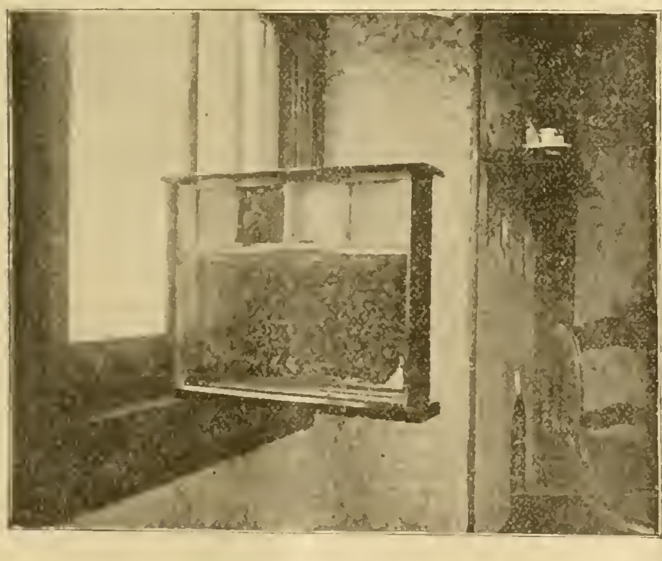
Contributed Articles

An Observation Hive.

The photograph from which the picture herewith is a reproduction, was sent us lately by Mr. Wm. F. Ware, of Cumberland Co., N. J., who said this about it:

"It is a photograph of an observatory hive I have had in my sitting-room window. I kept it there until the hive became too full of bees, and the queen commenced laying in the sections above. By the way, she was hatcht, fertilized, and laid her first eggs in this hive. If any one wishes to learn the habits of bees, let him or her have a hive like this."

From the illustration here given, any one with a few tools and the exercise of a little ingenuity, can make an observation hive that will answer every purpose. Having it placed as Mr. Ware had it, it would afford an endless amount of bee information and amusement. Especially will it prove of much interest to visiting friends and neighbors, and children having access to such a miniature "show" would become greatly interested in studying the habits and work of the busy bee.



The Honey-Flow of 1897—Queens Fighting.

BY G. W. DEMAREE.

The past three years—1894, 1895 and 1896—were failures in apiary work. 1894 gave us the disgusting flow of "honey-dew;" 1895, a small quantity of acidulized honey from the red clovers, and the little sickly white clover that had escaped the summer drouth. I can't be blamed for wondering what those wonderful scientific "upper" and "nether" head-glands were doing that they neglected to "*make*" good honey out of this sour nectar!

1896 was a year of abundance of rain, but the clovers had disappeared, and there was no honey excepting some fall honey. But 1896 re-instated the white clover in all its glory, and after the cold, wet spring (1897) had killed 75 per cent. of all our bees in northern Kentucky, we had six weeks of the finest and most lavish honey-flow in my experience of 30 years.

On May 20, last, my apiary of 45 colonies was reduced to 15 weak colonies. No one could help them through the cold, wet weather of March, April and May. When the weather turned warm I took charge of the bees, and in the month of June increast them to 36 colonies. Notwithstanding the increase was too late to secure much surplus, my honey crop—comb and the extracted article—was a "surprise to the natives."

The condition of the weather during the period of this unprecedented honey-flow is interesting to the genuine bee-man. The weather was amazingly hot, and the atmosphere was loaded with moisture, "awfully sultry." No "cool of the morning," no let-up in the evening, nor any abatement at the "midnight." I sometimes lookt at the bees and wondered f they could survive a temperature of 97° to 98° many days. There was no excitement, the motion of the bees was rather sluggish than otherwise, being loaded down and literally satiated with delicious pink-tinted nectar. There is now a good promise for fall honey for winter supplies.

I was a little surprised to see Dr. Miller's letter on page 466. It would have been much better if Mr. Bankston had simply given his views on the points on which he wrote. This would have accomplisht his purpose, and offended nobody. If Mr. Bankston called Dr. Miller a "liar," he accuses several of us in the same way. I have mentioned the fact several times that I have had good, strong queens reared from 3-days'-old larvæ.

When the Cyprian queens were first imported by Mr. Jones, of Canada, Mr. A. I. Root, in compliance with an order from me, sent me by mail a piece of comb about 2 inches square, containing "just hatcht larvæ." This piece of comb was two days in the mail-bags; the larvæ were fully three days old when the prepared colony received the piece of comb.

I got five young queens mated, and they were afterwards the heads of five as strong colonies as I had in my apiary of 40 or 50 colonies of bees. They were mated with Italian drones, and were all extra-good queens. I, on one occasion, made up an artificial swarm by taking combs of brood from several colonies. My purpose was to give them a queen-cell in a few days, but forgot it.

These bees reared a queen that cut the capping of the cell in a little over eight days. The larvæ must have been over four days old at the start. She made a good queen.

But, really, I prefer young larvæ of 1 day old for rearing queens.

Well, now, Dr. Miller ought not to be surprised because some of us were surprised when a teacher in bee-economy of his reputation seriously askt, "Whoever saw laying queens fight?" Twenty years ago I was practicing the profession of the law, and had much spare time in summer, and I spent it experimenting with my bees. I had a miniature show-case covered with glass, to test these matters. Queens *always* fight sooner or later when caged together. Such is my experience.

A neighbor of mine—a man noted for his knowledge in animal economy—told me that he put two queens under a glass, and the battle was fatal to both. Here is an exceptional case.
Shelby Co., Ky.

Some Suggestive Notes for Beginners.

BY R. F. HOLTERMANN.

September, to the provident, brings thoughts of winter, and in the train of that the average bee-keeper, especially the beginner, wonders how he shall winter his bees. In wintering, as in many other lines, the beginner with one or a few more colonies cannot adopt the same system as the advanced bee-keeper. I am now writing particularly of outside wintering. But there are certain conditions in which the colony should be, which applies to all. In districts in which there is no fall flow of honey the bees should be prepared for winter, as far as the condition of the colony is concerned, early in September. Those with the least experience with bees are generally the most spasmodic in the preparation of their bees for winter. If the bees have done well during the past season, they are cared for and every effort made to carry them through for the following season.

On the other hand, if they have given little or no surplus, the bees are pretty well allowed to shift for themselves, with the "root hog or die" principle to the front. No person can succeed in any line of business by such methods, and the sooner the beginners look upon bee-keeping as a business the better. I have been in pretty close touch with bee-keeping for 17 years, and I find that the successful men in bee-keeping are those who pursue an even tenor; they look forward or prepare for a crop each season, and then quietly take matters as they come. If the season has been poor, and the bees have not gathered enough for winter, they buy the granulated sugar and feed. If it has been an exceptionally good season they do not lose their heads and buy up all the bees in the country. These men have the best success.

Then we have those who "let their bees slide" after a poor season; they have had no returns, and will not lay out extra money or labor, until they bring some returns. As a result, most or all of their bees perish, and the empty combs are destroyed by moths, or perhaps sold at a sacrifice. Next season, or perhaps the one following that, bees do better, a neighbor or two makes a little money, and the third season our discouraged bee-keeper screws up his courage to a sticking point, and invests, and the investment is again followed by a bad season. He says it is "my luck," when the fact is, it is not what he has, but what he lacks or fails to exercise—"common sense"—that leads to trouble.

Then, no matter what the season has been like, keep right on. First see that the colony has a queen; if there are no queen-cells built, and there is brood in all stages down to the egg, you are fairly safe in assuming that the queen is there; but it is better still to see her. It may be that there is not brood in all stages, and particularly may this be the case when there has been no honey-flow after basswood. Then there is no other way than to actually see the queen. In 99 cases out of 100 I known when a colony is queenless before I examine the combs, but this is something which can only be acquired by long and much experience.

Look for the queen, smoke the bees as little as possible, take the combs out quietly, and do not be too long looking them over the first time, otherwise the bees get restless and leave their position on the last combs before you reach them. If the colony is queenless, but has good brood, and is a good, full colony, and you want the bees, you had better get a queen at once. If 50 cents is an item of some importance with you, get an untested queen; a colony queenless for sometime, especially when honey is not coming in, may, and is somewhat likely to, kill the queen. Never put a tested or more expensive queen into such a colony.

Having a good laying queen in the hive, the next consideration is the number of bees. Unless there are bees enough to crowd four Langstroth combs, I would unite it with another weak colony. I shall not here tell you how to do this, but one queen of course must be destroyed, and the remaining one caged. I would not unite fairly strong colonies, or one a little below full strength, with a weak one—especially sound is this advice to a beginner. Where the colony is not full strength, I would contract it by means of a board so it can fill the space it has.

Next for stores: The weakest colonies require the fullest combs because they will consume about as much as the strong, and they can cover the least amount of comb. Give full combs, or partially-filled combs, in preference to feeding syrup. Give them winter stores as soon after Sept. 10 or 15, as the absence of brood in the majority of the combs will permit taking out the combs with the least honey and replacing them with full ones, or nearly so. Do not divide the stores at each side of the brood-nest, but put the fullest at one side, and so on with the least honey at the other side. Next, with your knife cut a hole in each comb, put it half way between the two side-bars, and almost two-thirds of the distance up from the botttom-bar. These are for winter passages, and allow access through the cluster of bees without passing out of it, as the bees would have to do when passing around the comb, either top, bottom, or sides.

Buckwheat honey is good stores for bees—so is any other honey as far as I know. Honey-dew is not honey at all. The bees sometimes gather it. The flavor is generally rank, and it is dark in color. To have such stored in a hive is generally an exception, and the beginner need not worry lest such a condition should exist without his knowledge. Having a colony in this condition, the beginner, or any one else, has gone a long way towards successful wintering.—Canadian Bee Journal.

Some Advantages of the Bee-Space.

BY W. C. GATHRIGHT.

In the article on page 482, the assertion is made that no bee-keeper uses the bee-space for any other reason than because it is handy. Put me down for one that finds the bee-space very valuable in other respects, besides being the best known arrangement for handling large numbers of bees when time is too valuable to brush and smoke bees off the frame tops every time the super is to be put on. I know all about that "sliding" method which works so nicely—on paper.

I assisted in an apiary two years ago, having supers built on the non-bee-space idea. Well, to make a long story short, I will just say I would not accept such supers as a gift.

As before stated, I find the bee-space *very* valuable in another respect. Out here shade for an apiary is scarce and hard to find, consequently most apiaries are located where the sun strikes them all day, and were it not for the bee-spaces there would be serious trouble with combs melting down. I know this to be a fact. I once put out some hives facing south, and in almost every one the comb next to the wall of the hive on the west side of the hive was melted down.

I then turned the hives with the entrance to the east, and had no further trouble. The space between the end-bars and the end of the hives served almost the same purpose as a double-walled hive.

I want a bee-space even if I never handle a frame. I have 200 colonies, and have no other business, but I don't know it all. I have had an idea that pure air is beneficial to all animals, even to bees, but from Mr. "Common-Sense Bee-Keeping's" argument, one would suppose such is not the case, but would be sure to cause bee-paralysis, spring dwindling, foul brood, etc. So, to avoid disease it seems we must abolish the "detestable bee-space," seal the covers down air tight, and give them a ⅜-inch auger-hole for an entrance, for their warmer breath must not be allowed to escape!

I say that this escaping of warm air from the cluster into the adjoining space is the best thing that can happen, since it allows pure, fresh air to take its place.

It is a pity that this "common-sense bee-keeper" does not give his name, so that we who are so far behind in progressive bee-keeping might inquire. But, hold on, he says we cannot bear it yet. I would like to inquire when he thinks we shall be in condition to receive the great truths which he, and and he alone, can give to poor, benighted bee-keepers, who still hold on to that "detestable bee-space." Will it be in our day and time, or shall it be kept to be revealed to future generations, who will be expected to have the mental capacity to bear it?

It is very easy for one to become partial to some pet scheme, and which sometimes really seems superior, but mainly because one pushes it and gets the best out of it, while the others are supposed to be "detestable," tho they may really be better, consequently they are neglected, and not given a fair trial.

If I am not mistaken, the bee-space was really the most important part of Mr. Langstroth's invention. If so, then it will be sad to learn that he was no benefactor, but folsted on the bee-keeping public a detestable nuisance, which is the main cause directly, or indirectly, of all our bee-diseases. No, I cannot believe that, and it will take more evidence than is now at hand to convince me.

Donna Ana Co., New Mex.

Marketing Honey—Some Valuable Hints.

BY J. A. BUCHANAN.

I believe I stated some time ago that I would have a short talk on this subject. It is one that is continually bobbing up. Articles of interest embracing many facts and some theory have been appearing for some time, especially the talks of Mr. R. C. Aikin. It is true, that bee-keepers who produce alfalfa, basswood, and other kinds which soon granulate, will ever have trouble unless a way shall be discovered to prevent candying.

We have handled immense quantities of alfalfa honey, but have given it up on account of its ready disposition to candy. Mr. Aikin's suggestion to put up the honey in small cans of 1, 3, or 5 pound sizes, and retail or wholesale in this way, letting it candy when it may, depending on the printed instructions as a means of information and education whereby the consumer may learn to liquefy his own honey, will do with only a very few people, as I tested this very plan some years ago.

Some four or five years ago I visited grocers in different towns and cities, on the hunt for bargains in honey that had been put up this way which had stuck on their hands, and being candied, it was not wanted, but lookt upon with suspicion by both grocer and buyers. I found in one store several hundred 3-pound cans of candied white clover honey, and bought the lot at 5 cents per can, and the grocer was glad to get it out of the way. This honey was labeled with plain directions for restoring to the liquid form. It is surprising how few persons there are who will read instructions in the management or use of any article.

Some of the worst abuse I ever got in my life came from retailers and customers upon finding the honey I had sold to them had candied, or "gone back to sugar," as they put it, as well as firmly believed. We now handle only such grades of honey as will not candy, or are very slow to do so.

As to the matter of taking up all jars, cans or glasses, and replacing with freshly liquefied stock, I can think of nothing more distasteful than such everlasting foolery and waste of time; not only so, but, worst of all, this reliquefying will soon destroy both color and flavor. I have known several parties who once put their honey on the market in this way. I did so myself, but it's too puttering a business to keep up continuously.

In localities where the honey crop is not large, bee-keepers can find customers for all they produce, with little trouble, and at satisfactory prices; but the case is different where there are great quantities and no good home demand. In this case it appears to me it would be quite as well to wholesale and let it fall into the hands of those who make a business of handling honey by hunting up consumers. By the time this class pays freights, stands all losses, bears all expenses of traveling, taking orders, delivering, etc., he will find, these slow times, that his profits will all be taken at an ordinary bank, if not all, to defray expenses.

Just let every producer do his level best to sell in his home market all he produces, at the best price possible to obtain, going at the business with a determination to sell, and I am sure there will be no very large quantities find their way into the hands of city commission houses.

I have often bought bee-keepers' crops of honey and stept into the towns right around them, and in a few days' work have doubled my money on the purchase, while they all the time claimed there was no use to try any more to sell honey in "such places;" but I'll admit the fact that not all people are salesmen.

Altho we sell large quantities of honey, both comb and extracted, each season, we never sell honey to dealers, but altogether to the consumer, giving them fresh honey, and so good that they will not keep it long enough to candy.

We put up no smaller packages than one dollar's worth, as it does not pay to deliver a less quantity at the close margin at which honey may be sold at these times.

It has always seemed a mystery to me how it comes, that, in nearly every case, we are able to purchase honey of the same quality from commission merchants of the large cities at a less price than we can buy direct from the producer. Perhaps bee-keepers ship to cities in the hope of getting the best prices; but after waiting long and getting anxious for returns, they advise their dealers to close out at once to the best advantage, which is sure to be to any other person's advantage more than that of the owner of the honey.

Now let every one who can find anything like a fair home market go to work and supply this and keep it up, which plan will be found to give, in the outcome, the best and most permanent satisfactions as well as profit.—Gleanings.

[Editor Root then follows the foregoing article with these paragraphs:—EDITOR.]

I believe I have already said—at all events I will say it now—that Mr. Buchanan has probably sold more honey, in a retail way, and has done more in the way of developing local markets, than any other bee-keeper in the United States. He annually produces large crops of honey, and not only sells his own, but sells for a good many others.

Mr. Buchanan's experience with regard to candied honey, and replacing the same with liquid, will probably not work satisfactorily with him; but Mr. Chalon Fowls, of Ohio, has workt on this plan for years, and considers it profitable.

I was struck particularly with one paragraph where Mr. Buchanan says he has often bought bee-keepers' crops of honey, and sold it right around their homes, and doubled his money, while they (the bee-keepers) had all along claimed that there was no use of trying to sell honey in their markets. Granting that Mr. Buchanan is a natural salesman, and knows the art of selling, this does not explain how he should be able to double on his money, unless, at least, those bee-keepers who complain of their home markets have made no effort to develop them. Perhaps they are not read up—or at least have not read the series of valuable articles that have been running in Gleanings and the other bee journals of late. Understand, I do not question Mr. B.'s right to double on his money. It is his privilege and right, if the other fellows won't post up and do something.

Mr. Buchanan calls attention to another significant fact; namely, that in nearly every case he has been able to buy honey of a given quality from commission merchants in the large cites *cheaper* than he could buy the same honey direct from the *producer*. This is too true. It can be explained only on the ground that so much honey is sent to the cities that it gluts the markets; and the consequence is, the bee keeper is glad to get anything if he can only get *something*. Too often he is deceived by quotations that are above the market. Big promises for immediate returns at glittering figures allure him. Why will not bee-keepers learn to be careful? Nine-tenths of the producers know the art of *securing* honey; but I almost believe that nine-tenths of them do not know the art of *selling*. Why, we are to-day having the finest qualities of comb and extracted honey offered to us at prices that are ridicuously low. Sometimes we buy and sometimes we do not. We very much dislike to be lugged into the "general swim" with those who are trying to buy closely, at the expense of the hard-working bee-keeper. It is too bad, but need not be if producers would not be so fast to lump their honey off in large lots for the sake of getting a "big pile" all in one lump.

⁂

A Canadian Report for 1897.

BY A. BOOMER.

I see no late reports from any in Canada, and any report from me would perhaps be of little interest to American readers, but as the editor asks for such I will venture to give mine.

I started the season with 43 colonies, all in fairly good condition, but owing to a wet, cold spring I had to feed some of them, and only regret that I did not feed more. But the profits of bee-keeping are so small that we are tempted to get through with as little expenses as possible.

When swarming commenced, I took no particular means to suppress it, as I had some 60 empty hives and a great quantity of combs that I wanted filled up. When the hot weather of June set in, swarming became very prolific, and two or more swarms would issue together, and of course unite, and, believing that I would in any case get my hives filled, I did not attempt to divide, but whether there were two or three, I ran them all into one hive, put on a queen-excluder and a case of sections or surplus combs at once, and all went well.

I had fully 100 swarms, sold a couple, used up two or three hives of brood (after swarming) in strengthening weak colonies, and have increast to 102. So nearly all my swarms have been doubled, and are all strong.

White clover yielded abundantly, but basswood only lasted a week, and most of this time was cloudy, wet and cold, so that we have no real linden honey this year.

I will have over 3,000 pounds of extracted, and about 1,000 pounds of comb honey, which, taken with the large increase, is a very satisfactory crop.

White clover is still abundant, and we may get considerable more. During the heaviest flow my bees were unusually cross, so much so as to be discouraging, but on the first day of the opening of the basswood bloom, all became serene and lovely, and I could extract without veil or gloves—a thing I could not previously do without suffering too much.

I do not think I lost more than one small swarm by absconding, and only one swarm left the hive after being hived; that I attributed to the want of shading, as the day was very hot.

I have sold the greater part of my crop, realizing 8 and 12½ cents for extracted and comb, respectively. Some other small bee-keepers who did not want to take their honey out and sell it, sold at home as low as 6 cents. I would not, however, have any trouble in disposing of double the quantity I have, at the prices stated. I think that more money can be made with extracted at 8 cents than with comb honey at 12½, but I have colonies that have produced over 100 pounds of fine comb honey.

I use queen-excluders, and cannot see any difference in the working of the colony with them or without, but it is a great pleasure, when extracting, to have all the combs free from brood, and as a large part or my combs are drone-comb, I could not do without excluders.

I expect to winter 100 colonies, and next season (if they winter successfully) I shall have to adopt some heroic measure to keep down increase, as I have no room for it, nor could I attend to any more.

I was greatly interested in Mr. Edwin Bevins' racy epistle in a late issue of the Bee Journal, and it will be a matter of regret, I am sure, to all the readers of this paper, if he cannot be induced to change his mind and write many more such spicy articles before the lapse of 20 years.

Ontario, Canada, Aug. 16.

[Mr. Boomer, we do not think that Mr. Bevins will succeed in making a Rip Van Winkle of himself. He'll wake up long before he has put in one of his 20 years' snooze.—ED.]

⁂

How to Render Small Amounts of Beeswax.

BY MRS. EMMA I. ABBOTT.

Many who have only a few bees and do not own a wax-extractor, miss one of the sources of profit in bee-keeping by not saving the odd bits of comb and the old combs that are no longer of any use to the bees. Have a receptacle into which all such may be thrown until the end of the season, or until there is sufficient to make a good-sized cake of wax.

Some day when you have a fire in your cook-stove, and will not have use for the oven, tie these pieces of comb up in an old cotton-cloth. Place in the oven a tin or granite iron pan with about an inch of water in it; lay two slender sticks across the pan, and on them the cloth containing the combs, in such a way that it will not dip down into the pan, nor drip outside on the bottom of the oven; shut the door and go about your work.

Take a look at it occasionally to see that all is going well. The temperature of the oven should be moderate. If the water boils, it is too hot. Regulate the fire or dampers, or leave the door open a little way. The heat should not be great enough to scorch the sticks or cloth.

When the wax seems to be all dript into the pan, remove the sticks and cloth. If possible, let the fire die out, shut the oven and leave the pan of wax to cool in the oven. This will insure a slow and even cooling of the wax, and will allow the dirt that may have filtered through the cloth to settle into the water in the bottom of the pan. But if the fire is used for other purposes, remove the pan carefully and steadily, cover with a tin pot-cover, a board, or anything that will lie closely over it, but will not touch the wax; then place over all an old blanket or quilt, folded several times, and tuckt closely around the pan, to prevent the heat from escaping too fast.

On this, more than any one thing, depends the quality and appearance of your wax. If it cools too rapidly, the particles of dirt, propolis, and honey will be caught in the mass, giving it a sticky feeling and a mottled appearance. If the surface hardens too quickly, it will crack open as the inside cools.

Do not uncover until the pan is no warmer than your hand. When the cake is thoroughly cooled, it will loosen from the pan easily, but if you attempt to get it out before, even tho the wax seems hardened, you will not only have your trouble for your pains, but you will realize as never before, what it means to "stick as tight as beeswax." Scrape off with a caseknife whatever settlings are on the bottom of the cake, and you should have a clean, clear, smooth cake, that will bring the highest price in the market.

If, for any reason, the wax is not satisfactory, the cake can be broken up, tied in a clean cloth, and put through the same process again.

If it is desired to make small cakes, pour from the pan, while hot, into cups or metal molds and cover closely.

Here are a few don'ts to hang on the walls of your memory when rendering wax:

Don't allow the wax to come in contact with iron, as it will blacken the wax.

Don't grease the molds. It is not necessary, and injures the appearance of the wax.

Don't move the molds before the wax cools. The wax that slops on the sides will harden there and give the cakes a ragged look on the edges.

Don't let the wax boil. This tends to make it brittle and crumbly.

Don't spill any melted wax on the floor. If you do, you will be sorry.

Don't spend precious time trying to scrape and scour off any wax that may stick to the pan, but take it out-doors, away from the fire, and apply a little gasoline. It acts as a certain brand of pills are said to act on a weak stomach—like magic.

Don't rush off to town and sell your wax to the first bidder. Begin now to watch the market reports. The price of wax fluctuates with the change of seasons, and you can soon learn what time of the year it is highest. Then sell.

These directions are for those who have only a few pounds of wax to be rendered. A large quantity would, of course, have to be handled differently, but for small lots I prefer this method to any I have ever tried.—The Busy Bee.

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The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

Some Things Learned in the Apiary.

BY B. F. LEWIS.

I see the Editor's invitation on page 232 to his readers to relate, or rather, contribute their experience that they may have with their bees this season and report what they have learned. To begin with, very few people down here in Mississippi keep bees except in box or gum hives, and about my only way of keeping up with the times is reading the bee-papers, which are very interesting to me.

We winter our bees here on the summer stands, and I think as good a way as any to take care of the combs is to leave them on the hives, and let the bees take care of them. When I run for extracted honey, the hives being 2 stories high, through the winter the queen would almost invariably begin laying in the top-story, and about one week before the honey-flow—which is about the first of May—the upper story would be well filled with brood and honey, and the lower combs would be empty. I then go to work and run the queen down in the lower story, and put a zinc honey-board above her, and set the body with the brood above the zinc honey-board. The queen is then separated from the brood, and has plenty of laying room, and as the brood hatches out above, the bees will fill the combs with honey.

Sometimes it is necessary to put on the third or even the fourth body to give the bees room to store the honey. If I find the queen is crowding the combs in the lower body with brood, I move some of it above, and give her more empty combs. By this means I prevent swarming, and have rousing strong colonies of bees to harvest the honey.

If I want to increase my bees about the end of the honey harvest, I divide them, or, as some term it, "swarm them artificially." I tried the above plan with one hive a few years ago; the next year I tried a few more, and this year I workt quite a lot of them this way. I don't think I ever had a colony swarm that was managed as above, and I have always got more honey from those colonies than any others in my yard.

FASTENING DOWN THE BEE-VEIL.

Another thing I have learned that I like very much, and that is the way I fasten the lower end of my bee-veil to keep the bees out. I found an old spring about my place that lookt like a clock spring. I cut a piece of it off about long enough to go around my neck. So I just put on my bee-hat with the veil on it, and pull down the tail of the veil, then open the spring collar, and let it go around the veil around my neck. The spring holds the veil so close that no bee can get under it; and if I should want to spit, or blow my nose, all I have to do is to catch hold of each end of the spring and lift it off, raise my veil, and spit or blow, as the case may be, and put the spring back. I consider the spring to hold my veil in place a big help, and a great convenience—by far the most convenient way that I have ever tried. All are at liberty to try it, as I claim no patent on it.

AN EXPERIENCE WITH HOFFMAN FRAMES.

The last thing that I shall speak of this time, but by no means the least, is the Hoffman frame. When I began using the improved hives, some six or seven years ago, I bought 41 dovetailed hives. At that time the frames had thin top-bars and comb guide, and we wired the foundation in by putting two diagonal wires running from the center of the bottom-bar of the frame to the upper corners of the frame, then put perpendicular wires about two inches apart across the frame, and fastened the foundation to it. The last two lots of hives that I bought, the Hoffman frames came with them, and I wired and put in the foundation according to the directions, running the wires horizontally. I would draw the wire as tight as it and the wood would bear, then stick the foundation to the top-bar and imbed the wire as directed.

I put them into the hives and hived the bees on them, and ofttimes when I go to examine a hive, I find some of the foundation had dropt down, and the bees were trying to use it in its piled-up shape. In a great many of the others the wires have sagged, and are loose from the foundation; and I have a lot of crooked combs to be troubled with, or to render into wax. If I get a hive of them built straight, and use them a year or two, when I go to examine the hive the division-board is so tightly propolized that I cannot get it out until I remove some of the frames, and the end-bars are so badly stuck together that I have to carry something with me to pry them up, and they are so wide at the top that I cannot see to the bottom, to see if they are straight enough to come through the gap; so I have to risk it, and pull them up. If the combs are perfect, all is well, but if they are a little crooked or bulged, I am almost sure to jag a hole in the honey or board, as the case may be. With the old-style frames that I got in my first purchase, and the manner of wiring in the foundation, I had no such trouble.

So I think I have learned that I want no more Hoffman frames in mine. Perhaps other bee-keepers can manage so that they have no foundation to fall down, and no crooked combs. Those who have to haul their bees to out-apiaries, or carry them in and out of cellars, may prefer them, because they are self-spacing and cannot slip about while hauling or handling the hives. Desoto Co., Miss.

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Thin Honey—Grading—The Market.

BY JOHN H. MARTIN.

There is the usual factor present this season—thin honey, and in a majority of cases there is but one cause for it, viz.: too great haste in extracting. Sage honey, when thoroughly ripened in the hive, has a thick and heavy body. A saucer full of it can be turned upside down, and it will be slow to leave the saucer. But this, or any other honey, when extracted before the combs are sealed, will, as a rule, be nearly as limpid as water. Such honey also lacks the flavor found in well-ripened honey. It has a raw, pungent taste, and purchasers will not come back for that brand a second time. This honey is also liable to ferment and become sour, resulting in a dead loss to producers.

An excellent rule to follow in extracting honey is never to extract until the combs are filled and capt at least two-thirds of the way down.

Thin honey can be ripened by standing in a large tank for some time, but in this case it never gets the fine flavor that can be secured by thorough ripening in the hive, where the bees know how to do it.

This standing in a tank for a long time in our hot districts, oftentimes results in a discoloration of the honey by too great heat. We know of an instance where a fine quality of water-white honey was changed to an amber by leaving the unprotected cans in the hot sun for several days. The production of a first-class grade of honey cannot be left to the inexperienced bee-keeper; there are too many of the latter class in the field, and their product should be mercilessly turned down.

ONE VALUE OF THE EXCHANGE.

Mr. H. E. Wilder, of Riverside county, is the official grader of Exchange honey. In the process of grading, every can is removed from the case and inspected as to grade. Every can is weighed and labeled, and the net weight of the honey markt on the label with the grade, date of inspection, and name of grader. It makes no difference how much the case weighs, the producer gets the actual weight of his honey. The usual tare for cans and cases is 16 pounds. The case varies so much in weight that the producer generally looses from two to three pounds of honey in the tare, for the dealer is sure to put the tare high enough to cover heavy-weight cases, when many times they weigh less than 15 pounds. Mr. Wilder estimates the saving to the bee-keeper by weighing up separately and giving actual weight at from $12 to $15 per car. If bee-keepers would just turn in and make the Exchange strong enough we can arrange to give tare only on the wooden case. The producer should receive pay for the tin can, for it is an article of value after the honey is used.

CONDITIONS OF THE HONEY MARKET.

Reports continue to arrive giving advices of an unusual honey-yield in the East, which is uncertain as to the effect upon the price upon California honey. We think if the Eastern yield affects any class it will be the comb honey producers. Comb honey is more extensively produced in the East than extracted honey, and ours will come in direct competition with it. Our comb honey is usually put up in the Western shipping-case, which many times is a rough-looking affair beside the Eastern case, and as the best appearing package sells first, the Eastern producers will have that advantage.

Extracted honey is not so much the product of the East as it is of the West, and we think, owing to the use of extracted honey for manufacturing purposes, that it will hold its own.

One encouraging sign for an advance is the rise in the price of sugar. The leading sweet controls in a great measure all other sweets. Considering the extremely low prices of all other food products, honey is holding its own, and we are confident prices will improve after the heated term, and the fruit season is over. Nearly all honey sold previous to cool weather is moved upon purely speculative purposes. The proper time to sell our product is very much of a problem, well worthy the attention of producers.—Rural Californian.

Los Angeles Co., Calif.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Feeding for Winter—Introducing Queens in the Fall.

I have a colony of bees which I removed from a box-hive to a 10-frame hive Aug. 14. The colony was 3 years old, and sent out two swarms this season. Supposing I would find considerable honey, to my surprise I did not find more than four or five pounds, and not a large amount of brood, which I placed carefully in the frames of the new hive. There was about a peck of bees which seemed to be mostly young ones. I transferred them in the morning, and going to look at them in the afternoon I found ¾ of them had come out and hung on a limb over the hive. I put them back into the hive, and they seem all right now. I did not find the queen. They do not seem to be strong workers.

1. Will they be likely to store enough honey to winter them?

2. If not, what should I do?

3. Would it be wise to introduce an Italian queen this season, or wait until next spring?

4. Why did they not have more honey?

NEW JERSEY.

ANSWERS.—1. Somewhat doubtful, but it depends upon the fall resources of your locality. If buckwheat or other fall flowers are abundant, they may store enough for their winter needs.

2. Feed them. If you have no feeders, use the crock-and-

plate method. Fill a crock or other vessel one-half full of sugar, then fill up with water, either cold or hot. If you don't wish to feed as much as the crock will hold, you may use any smaller quantity desired, measuring in equal parts of sugar and water. It doesn't matter whether you go by measure or by weight. Now put over your crock two thicknesses of flannel or other woolen cloth, or five or six thicknesses of thin cotton-cloth, such as cheese-cloth, and over this put a plate upside down. Then with one hand under the crock and the other over the plate, turn the whole quickly upside down. Put an empty hive-body over your hive, set the crock and plate on top of the brood-frames, cover tight so no bee can get in except the bees of the hive, and leave the rest to the bees. If you wait till the weather gets too cold, the bees will not take it down.

3. If you introduce her this fall, you will be just that much ahead next spring, and your whole force for the honey harvest will about all be of the improved stock.

4. Hard to say without knowing more of the circumstances. Perhaps not a great amount of honey had been yielded by the flowers, the bees having only been able to gather a litlte more than enough for their daily needs. Remember that enough for their daily needs means a good deal when they are rearing a large amount of brood.

Removing Surplus Late in the Season.

This is my first season of bee-culture, and while I think fortune has favored my management so far, I have now reacht a point of uncertainty. I have seven colonies—all new swarms—which have been very industrious. They are enjoying the luxuries of the latest hives, and have been perfectly satisfied with their quarters. On July 15 I removed the super from the oldest colony, and the other supers are about filled now. Would it be policy to remove supers this late in the season (Aug. 18), if the prospects for honey-gathering were fairly good? Or would these colonies, being new swarms, provide a winter store regardless of the supers? Is it customary to allow supers partially filled to remain on the hive during winter? NEW MEMBER.

ANSWER.—It is not too late to remove the supers, and indeed it is the general custom to remove all supers at the close of the honey-flow, whether they are completed or only just begun. It is a good thing perhaps for the bees, to allow supers with their contents to remain on the hive during the winter, but it's a pretty rough thing on the sections. They will be darkened, plastered with propolis, and not very fit for use another year. Probably no up-to-date bee-keeper leaves sections on the hives over winter. If there is room for it in the hive, you may generally count that the bees have enough supplies stored in the brood-chamber, but if your hive has only eight frames it may happen that it is so filled with brood that there is not room enough for honey. In that case you'll have to feed. If two or three of the frames are entirely filled with honey and the rest about half filled, you need not feel anxious.

A Beginner's Troubles.

I have 5 colonies of bees—4 swarms and one old colony—and I won't get one pound of honey. This has been a very poor year; the rains seemed to wash the honey out of the white clover, but lately the bees have been gathering some honey. My old colony is not as strong in bees as it was in the spring; the bees come out early, and some fly away, while others fall on the ground, and they jump and seem to be excited. I understand from other bee-men that the wings of an old bee are ragged; all of my sick bees have nice, clean wings, and as near as I can tell are young bees. The peculiar part of it is, if I pick them up and hold them between my hands, they will liven up if nearly dead, and fly away as lively as any bee.

The queen in this colony is not very prolific, and the hive is of an odd size; I have a standard size with nice, straight combs from a colony that lost their queen. How would it do to put the bees into the standard hive, kill the queen, and replace her with a more prolific one? The queen doesn't rear young as fast as they die. How would it do to make some ginger or pepper tea, and feed it to the bees in some sweetened water or honey? I don't think it is paralysis, as the bees are not black and shiny; they seem to be numb, and get all right when I warm them up in my hands. WASHINGTON.

ANSWER.—If I understand you correctly, you started with one colony in the spring and have four swarms from it. If that is the case, and all five are in anything like fair condition, it can hardly be said that you have had a very poor season, and after sending out four swarms the old colony ought to be very weak. As the bees revive and fly away lively after being warmed in the hand, it may be only that they are chilled in the cool of the day, and are not diseased.

They probably would not take very kindly to ginger or pepper tea. Catnip is better for them, allowing the bees to gather from the catnip bloom.

Changing hives would hardly help matters any so far as the bees are concerned, but if the queen is at fault a change of queens might be a benefit. But if the colony was greatly weakened by swarming, you cannot expect the queen to do as good work laying as if she were in a strong colony.

A Swarm that Swarmed.

Your humble servant is considered to be quite an authority (local) on bees and their habits, but my opinion was askt, and I was compelled to answer I do not know. I will give the circumstances:

On or about May 20, a runaway swarm was hived in a Simplicity hive. About two weeks ago, 30 pounds of surplus honey was taken off, and yesterday (Aug. 12) they cast a large swarm. I made an examination at 7 o'clock, p.m., to find the cause of a swarm being cast in a honey-drouth. I found drones and evidence of queen-cells, and at least two inches of honey sealed in each frame, but few capt brood, and could see no signs of eggs. I shall make further examination in a few days for eggs, etc.

The question was askt me: What was the cause? I never in my 12 years' experience saw, heard, or read of anything like it. Perhaps if the bees were my own I could answer it myself, but I have watcht the colony closely ever since they were hived, and I am at a loss to answer it at present. NEW JERSEY.

ANSWER.—When a colony casts a prime swarm, it may cast one or more after-swarms in from one to two weeks later, and as a rule neither the old colony nor any of the swarms will cast a swarm after that time during the same season. Still it may happen that the first swarm of the old colony may become so strong as to throw off a swarm a few weeks later. The chances for a swarm are increast if by any means the queen of the prime swarm is killed. Circumstances point to that in the case you mention. May 20 the swarm was hived, and by the last of July it had become strong in both brood and bees. If nothing had happened to the queen it very likely would not have swarmed. But the queen was killed, and 12 or 15 days later a swarm came off with the oldest of the young queens. By that time there was nothing left in the hive in the way of brood except some sealed brood, whereas if the swarm had come off with the laying queen, there would have been unsealed brood and eggs. A strong colony rearing virgin queens may send forth a swarm when flowers are yielding sparingly, whereas the bees are more prudent about swarming with a laying queen.

The Names and Addresses of all your bee-friends, who are not now taking the Bee Journal, are wanted at this office. Send them in, please, when sample copies will be mailed to them. Then you can secure their subscriptions, and earn some of the premiums we are offering. The next few months will be just the time to easily get new subscribers. Try it earnestly, at least.

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Editorial Comments.

The California Bee-Keepers' Exchange has handled, during the present season, over $5,000 worth of supplies for its members, and at a reduced price. At present the Exchange is the only factor that is holding up the price of honey. Every bee-keeper should be found in the Exchange, but such is the perversity of the bee-keeping character that a good cause is seriously handicapt by so many refusing to come in. This is what Secretary J. H. Martin, of the Exchange, said recently in the Rural Californian.

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Your Help Wanted.—We believe that we have the friendship and good-will of every one of our readers. Therefore we come to you with this request.

Every reader of the old American Bee Journal knows that we are trying to publish just the very best bee-paper we know how. But if we had twice our present number of subscribers, we could, and would, do ever so much better for you all.

Now, would it be too much to ask that each and every one of our readers send us at least *one new* subscriber for the last four months of 1897, at the 25-cent, trial-trip rate? We really believe that nearly every one could, with but little effort, send two or three names at that low rate. On page 570 we offer a list of premiums for doing this work. Extra copies to be used as samples can be had for the asking.

We know that our present readers fully understand the true value of the American Bee Journal, and they are the ones that can best speak of its merits, and most easily secure the new subscribers. The only question is, Will they do it? If so, we feel certain that after a four-months' trial, we can hold the new ones as permanent and regular readers. We can do that if they are at all interested in bee-keeping. Now, we do not ask very much from any one of our present subscribers, but all can see that if each sends in but one new subscriber this month, our list will be *doubled* by Oct. 1. Then by getting their renewal, and your own, for 1898, we will be in a splendid position to give you the best bee-literature possible. Will *you* help us do it?

◆

Marketing and the Commission-Man.—The American Bee-Keeper has quite a good editorial on this subject in its August issue. It reads as follows:

> There is one subject that is at present receiving markt attention by our fraternity and the apicultural press, over which there is neither dispute nor contention, viz: "The commission merchant." The way of the bee-keeper, generally, during the recent unfavorable seasons, has been fraught with anxiety, disappointments and discouragements; but when a fellow has finally "corraled" a crop of honey, only to see it devoured by some disreputable commission firm, the climax is reacht. The enthusiasm which had inspired his diligent work, gives place to a nauseating disgust.
>
> There are but few commission houses that have establisht for themselves a good reputation among bee-keepers, and even those that have in a measure done so, sometimes employ business methods very unsatisfactory to the shipper. Some system by which our product may be distributed throughout the length and breadth of the land, avoiding the present conditions of overstocking the large cities, and placing it before the consumer in a convenient retail package, must necessarily precede any deserved measure of success in the production of honey, especially in the liquid form.

The one very important thing bee-keepers need to look out for now is the high-quotation commission firm. This is nearly always done to get in a lot of shipments of honey, which afterward are sold at a good deal less than the quotations previously given. Of course, then the shipper is dissatisfied—and justly so.

We would indeed be glad if we could say that more than 12 cents per pound can be realized for best comb honey in the Chicago market now, but we can't do it. And there is neither sense nor justice in any firm here quoting a higher price than that just now. It may be that a little later on the price may be a trifle higher, but in view of the fair crop harvested we doubt if it will be any higher. Still, we hope we are wrong in this view.

◆

Buffalo Convention Notes.—Monday, Aug. 23, found us ready to start for Buffalo—just as soon as Dr. Miller should reach our office to go with us. He came about 1 p.m., and we soon started for the Nickel Plate railroad station, to take the train leaving at 3:05 o'clock.

Arriving, we found there Messrs. Abbott, of Missouri, Bennett, of California, Highbarger, of Illinois, and E Whitcomb and wife, of Nebraska. All, including Dr. Miller and the writer, left at the same time, some in sleeping cars and some in regular coaches.

At Buffalo the next forenoon unfortunately our train was nearly two hours late, so that the convention was begun before our company reacht the main hall of Caton's Business College, corner of Main and Huron streets, where the meeting was held. As we entered the room we were splendidly welcomed by the 125 or more bee-keepers already gathered, and after an introduction by Secretary Mason, we immediately relieved Mr. Holtermann, of Canada, who had been elected to act as chairman until our arrival.

We want to say right here that the low Grand Army rates certainly secured a very representative gathering of bee-keepers. They came from Maine to California, and from Florida to Canada. While we had to endure the great crowd of visitors in Buffalo, still we had the real pleasure of meeting many bee-keepers who doubtless would not have been there had it not been for the reasonable railroad rates assured by meeting at the same time and place as the G. A. R.

Mr. J. F. McIntyre, of California, was there. He was called up before the convention, and just compelled to talk. He has 600 colonies in one apiary, and his yield this year will be about 60 pounds of extracted honey per colony. He answered a number of questions that were "fired" at him while standing before the assemblage.

It was expected to have a very full report of the proceedings, but, somehow, it was impossible to secure an expert shorthand reporter at anything like a reasonable figure, so Secretary Mason requested Mr. Hutchinson to take notes, and write up as good a report as he could. As Mr. Hutchinson writes shorthand a little, no doubt the report will be equal to those he furnisht when he was Secretary of the society.

Mr. Hershiser, of Buffalo, had made the very best arrangements he could to care for the bee-keepers during the great crowding of people there the week of the convention. Of course, no one expected to have every home comfort, and so were not disappointed. The newspapers were too busy with the G. A. R. to look up the bee-convention until we had adjourned; then they put in some very nice notices of our meeting. Hereafter, if ever the bee-keepers tag after the Grand Army again, it might be well to select one of our number to prepare suitable notices for the daily newspapers. There will be no difficulty in getting them printed—the trouble was, the reportorial force was so busy with the G. A. R. doings that they just could not look after our interests also. But as bee-keepers are a modest set of mortals, they do not feel badly if the newspapers fail to bring them into prominence.

We think we are safe in saying that for no previous national meeting of bee-keepers were there any better papers prepared and read. We think our readers will agree with us, when they are permitted to read them. They cover a variety of topics, which were handled in a masterly way by some of the best workers in the apiarian field.

And then, there were present some of the largest as well as best known bee-keepers in this country. Capt. Hetherington, of New York State, who has 2,000 colonies, was on hand. What a splendid man he is, too. If only he could be induced to write for the bee-papers, his articles would be eagerly sought for. But he won't write. The only way to get anything good out of him is to stand him up before a convention and pour questions into him. The answers—great big ones, too—follow all right, then. Too bad he can't be kept talking bees at the elbow of a good shorthand writer who could "take down" his large chunks of bee-wisdom.

Then, there is P. H. Elwood. He was on hand—all of him, too. He and Mr. Doolittle would make a great team—both in physical and intellectual weight. Mr. Elwood has about 1,000 colonies, we believe. But he is too awfully awful backward in coming forward in a convention discussion. So we got him to do some committee work, which of course was well done. Mr. Elwood is one of the solid men of the pursuit. Looks and acts like a judge. Would make a good one, too. We had never before met him and Capt. Hetherington, tho we had heard a great many good things about them. We believe every word of it, and only wish we could see and know more of these two great New York bee-keepers.

Was Doolittle there? To be sure; and he just had everything his own way. Might have been elected President had he not felt it necessary to decline, for which we were very sorry. Doolittle has been before the bee-keeping world so long and so constantly—like Dr. Miller—that there is scarcely anything new that we can say about him. Everybody knows him, and all bee-keepers appreciate him for the great good he has done along apiarian lines. He has now 165 colonies, we believe, in two yards. He sometimes feels like giving up all writing on bees, but we don't believe he will succeed in doing it. Why, he wouldn't be happy if he should lay down his apiarian pen for one week. Don't think of it, Mr. Doolittle. Just keep on in the good way you have traveled so long, and continue to contribute to the happiness and knowledge of those who love the honey-bee.

Next week we will try to give a few more glimpses of the convention.

* * *

Publishing Dead Beats.—Editor Abbott, of The Busy Bee, has the following paragraphs on a very timely subject:

> The publisher of the American Bee-Keeper says he has about made up his mind to publish a list of the people who deal with them and will not pay their debts. I can see no reason why he should not; for, if a man will not pay a debt which he has contracted, or pay any attention to the man whom he owes when askt as to when he can meet his obligations, he deserves to be publisht. I am not so sure but what a paper owes it to the community to let people know who the "dead beats" are. But, brethren, I can suggest a better method: Adopt the cash system, and let your motto be, "Money, or no goods."
>
> As to the paper, when a man's time is out stop it, and only send it to people who are willing to send for it in advance. The Busy Bee could not publish a very large list of "dead beats," for if there are very many of them in this part of the country, we do not know it, as circumstances compelled us when we began business about 14 years ago in this city to sell for cash only, and you can generally count the people who owe us anything, on the fingers of one hand. From this time on you will not need any fingers at all to count them, as we have fully made up our minds not to fill any order to a consumer which is not accompanied by the cash. I wish all the rest of the dealers in the United States would adopt the same method of doing business.
>
> Debt is the curse of this country, and ruins hundreds of families every year, and the sooner it is wiped out of our method of doing business the better it will be for the poor man. The rich can stand it all right, but it is death to the poor man to owe or to have any one owe him. Let us pay as we go, or not go.

It is surprising the number of people who are perfectly willing to live on others, instead of being *men*, and paying for what they get. If we should publish a list of those who could pay their subscriptions to the American Bee Journal promptly if they would, and yet don't do it, it would be a surprise to a great many people. We believe it would be a good plan to let the world know just who the folks are who are willing to be clast among the "dead beats"—it would save others from losing on them, and perhaps might in some cases spur the "beats" up a little. We could show up a beautiful list of apparently honest people, who, after getting the Bee Journal for several years "on trust," refuse to pay up, or even to give any reason for not paying for what they have had.

"The Richest College in America" has its story most interestingly set forth by word and picture in the September number of Demorest's Magazine. It will be a distinct surprise to know that this title is not due any of our best known colleges, but is held by one which is doing a great work in a quiet way. The account of it will be attractive to every man and woman interested in American educational life. "The Meaning of Greater New York" is the title of another article, which is its own explanation. It is intended to answer all those questions about the consolidation of New York and Brooklyn which people with intelligent curiosity are always asking their friends, and which their friends are rarely able to answer.

* * *

White Comb Honey Wanted.—We wish to correspond with those having best white comb honey for sale. Please state quantity, how put up, and lowest price. Address, George W. York & Co., 118 Michigan Street, Chicago, Ill.

The Weekly Budget.

Mr. J. C. Hicks, of Marshall Co., Ky., writing us Aug. 31, said: "We are having an enormous crop of aster and golden-rod honey now."

Mr. Frank McNay, of Wisconsin, gave us a short call last week. He reports only a fair crop of honey this year in his State, the basswood having been almost an entire failure.

Mr. Leroy Highbarger, of Ogle Co., was elected President of the Northern Illinois Bee-Keepers' Association at its annual meeting in Freeport last month; S. H. Herrick, Vice-President; B. Kennedy, Secretary; and O. J. Cummings, Treasurer. Next week we will publish a short report of the proceedings.

Mr. J. H. Martin—Gleanings' California Rambler—completed his continued story, entitled, "Bee-Keeper Fred Anderson; or the Mystery of Crystal Mountain," in the issue for Aug. 15. We understand it was very interesting as well as mysterious. We did not have time to read it, but are willing to accept the verdict of others as to its readableness.

Mr. Lucian C. Jackson, 273 Pennsylvania St., Buffalo, N. Y., is the photographer who "took" the convention group. He can furnish the photographs by mail at 35 cents each. He also has a number of different views of the G. A. R. arches and the "Living Shield"—composed of 1,000 children drest in red, white and blue—at the same price as the bee-convention picture, we presume. This latter photograph is very good indeed.

Mr. L. A. Hammond, of Washington Co., Md., sent us last week a bushel of the very finest peaches. We don't get anything so luscious in the peach line in this Western country. We wish to thank Mr. Hammond for his kindness and generosity. Mrs. York was greatly pleased with them, for, like some other people, she "knows a good thing when she sees it"—especially in the line of fruits. And Maryland peaches—um, um!

Mr. C. P. Dadant, of Chas. Dadant & Son, in Hancock Co., Ill., dropt in to see us Monday, Aug. 23, when on his way home from accompanying his aged father to his annual retreat in Wisconsin, to escape the hay-fever affliction. Mr. Dadant reported a good season both as to their honey crop and the comb foundation business. He regretted not being able to take in the Buffalo convention, but it was impossible for him to attend.

Mr. M. H. Mendleson, of Ventura county, Calif., "recently lost about three tons of honey through a defective faucet in a honey-tank. This amount of sweetness made quite a respectable stream down the canyon. But Mr. M. is not dead broke by the loss, for he has over 50 tons left. We would suggest that these honey faucets be provided with a small padlock as a safeguard against accidental opening. The writer knows of an instance where a dog, by rubbing around the faucet of a honey-tank, lifted the lever, and run off the contents, which, in this case, was water, valuable of course, but not so valuable as honey." So writes J. H. Martin, in August Rural Californian.

Editor W. Z. Hutchinson, of the Bee-Keepers' Review, has been called upon to pass through the deep waters of affliction since the Buffalo convention. For about two years his good wife and a daughter, named Ivy, have been suffering with mental derangements, necessitating their staying at a sanitarium for treatment a part of the time. But on Saturday, Aug. 28, both being at home, the mother must have been seized with a severe attack, for she chloroformed to her death the youngest child—Fern—who was five years old, and also attempted to take the life of Ivy by shooting. Altho in a dangerous condition, it was thought, Aug. 30, that Ivy would recover, but the funeral of little Fern was held that day. Mrs. Hutchinson was again taken to the sanitarium the day before.

We know that the tenderest sympathies of bee-keepers everywhere will be extended, with ours, to our brother editor in his great sorrows. Those of us who have not had to pass through like afflictions visited upon him the past few years, can hardly realize what Mr. Hutchinson has had to endure, and is enduring now. May sweet Hope, the ever-brightening angel in all our human affairs, be near him, and lead him safely through the well-nigh overwhelming distresses which just now surround him.

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We would like to have each of our present readers send us *two new subscribers* for the Bee Journal before October 1, 1897. That surely will not be hard to do, when each will need to pay *only 25 cents* for the last 4 months of this year, or only about 6 cents a month for the weekly American Bee Journal. Any one with only a colony or two of bees should jump at such an offer as that.

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1 Pound White Clover Seed	25c.
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Bee-Pasturage a Necessity.—This book suggests what and how to plan It is a chapter from BEES AND HONEY. Price, 10 cents.

The Hive I Use, by G. M. Doolittle. It details his management of bees, and methods of producing comb honey. Price, 5 cents.

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Silo and Silage, by Prof. A J. Cook.—It gives the method in operation at the Michigan Agricultural College. Price, 2 cts.

Winter Problem in Bee-Keeping, by G. R. Pierce. Result of 25 years' experience. 30 cts.

Handling Bees, by Chas Dadant & Son.—A Chapter from Langstroth Revised. Price, 8 cts.

History of Bee-Associations, and Brief Reports of the first 20 conventions. Price, 10.

Foul Brood Treatment, by Prof. F. R. Cheshire.—Its Cause and Prevention. Price, 10 cts.

Foul Brood, by A. R. Kohnke.—Origin. Development and Cure. Price 10 cts.

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General Items.

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This has been the best honey season for years, and bees are in splendid condition. I will get nearly 1500 pounds of nice section honey from 36 colonies, spring count; and increase to 76. My bees were in very poor condition in the spring.
W. S. FEEBACK.
Nicholas Co., Ky., Aug. 30.

A Glorious Honey Season.

We have had a glorious honey season this time, and the end is not yet. It is very dry at present. If we should have a good rain in 10 days, we will get the finest honey from now until frost, from a boneset relative. We have but little white clover here.
J. C. HICKS.
Calloway Co., Ky., Aug. 21.

Bees in an Abnormal Condition.

My bees were very busy the past week. They stored some honey in the supers, against my wishes, and against their will, because they were obliged to do so on account of the brood-chamber being nearly all filled with brood, and the honey-flow may be past after it is hatcht out, thus leaving them without much winter stores. Some colonies are still swarming. I never saw my bees in such an abnormal condition as they are and have been nearly all summer.
C. THEILMANN.
Wabasha Co., Minn., Aug. 31.

About Half a Crop.

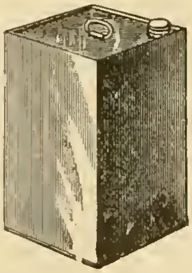
The honey-flow in this section is very light, amounting to but about half a crop. Basswood did not yield, and on that we place our main reliance. Sweet clover made a poor yield, while white clover did remarkably well; in fact, better than for many years. We look for a fair yield from fall flowers, having had good rains. We have had but one swarm this year.

Don't forget the Trans-Mississippi International Exposition in 1898, to be held at Omaha. There will be a magnificent display of honey and bee appliances there.
LOUIS R. LIGHTON.
Douglas Co., Nebr., Aug. 26.

Crooked Commission Men—Results.

I have been a shipper of small fruit and honey for the past 16 years, and thought the only way to convert our honey into cash was to clean it up in fine shape, and ship to Chicago; and I would still be a shipper to that market, but Horrie, about two years ago, changed the whole business. I became so disgusted with all commission men then, that I resolved to try the oft-advised plan of being my own salesman. So last year I purchast a heavy spring wagon, loaded it up, and struck out. I arrived in Kalamazoo at 7 p.m. As I drove into the feed barn the attendant said, "What have you that is so heavy in the wagon?" "Honey," I replied. "Holy cats," says he; "you will never sell that load in this town!" I said with some mistrust, "Wait and see."

After taking breakfast, I struck out to interview those that I thought



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that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polisht on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equipt with best machinery, all combine to enable this firm to furnish the
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Mr. Abbott sells our Hives and Sections at Factory Prices.

That Queen-Clipping Device Free!
Works Like a Charm.
The Monette Queen-Clipping Device WORKS LIKE A CHARM. With it I have clipped 30 queens, all in one day, when examining my bees. WM. STOLLEY, Grand Island, Nebr.
Couldn't Do Without It.
I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now. DR. GEO. LACKE, Newburgh, Ind.
PLEASE READ THIS OFFER TO PRESENT SUBSCRIBERS:
Send us *just one new name* for the American Bee Journal a year (with $1.00), and we will mail you the Queen-Clipping Device FREE of charge. Or, the Queen-Clipping Device will be sent postpaid for 30 cts. But why not get it as a Premium by the above offer You can't earn 30 cts. any easier. Almost every bee-keeper will want this Device.
GEORGE W. YORK & CO., 118 Michigan St., CHICAGO, ILL.

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If you are in a rush, send me your order. I sell the best only, and fill orders promptly at LOWEST PRICE. **Beeswax wanted in exchange.**

Working Wax into Foundation for CASH A Specialty.

Write for Catalog and Price-List, with Samples of Foundation and Sections.

GUS DITTMER,
AUGUSTA, WIS.

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Bee-Supplies! ROOT'S GOODS at Root's Prices.

Pouder's Honey-Jars, and every thing used by bee-keepers. Prompt service, low freight rate. Cat free. Walter S. Pouder,
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Being the cleanest is usually worked the quickest of any Foundation made

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W. B. House, Drawer 1, Detour, Mich.

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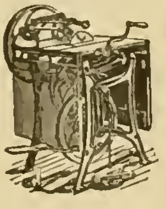

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220 Market St., · SAN FRANCISCO, CAL.

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might purchase. Some said, "Yes, if it is straight and fine." Others said, "Bring it around." The consequence was I sold the entire load at from 14 to 15 cents, and three different parties wanted the entire lot. I unloaded over 1,000 pounds of honey inside of one hour from the time my team left the feed barn, and got my cash for *all*.

That day's work opened my eyes, you may be sure. I want to say right here that C. R. Horrie & Co. opened my eyes wide, but it cost me about $75. This bought experience is lasting. A burnt child dreads the fire, and I have no use for commission men, altho I have shipt tons yearly to Chicago commission men, last season excepted. I appreciate what the American Bee Journal has had to say in the past regarding the ring of so-called commission house robbers and thieves. They have become rich off the Michigan fruit-men and others. But not by a 10 per cent. commission. They have every advantage of us shippers, and they don't fail to take it.

CHARLES WALKER.
Allegan Co., Mich.

Bees Did Fairly Well.

My bees have done fairly well this season. I barvested 1,650 pounds of honey from 32 colonies, and increast to 52. My honey is nice, all clover and linden. I have a good home market, and sell it for 14 cents a pound. I have sold 600 pounds. Some are selling honey here for 12 cents, and some are selling sugar syrup, which they fed to their bees, for 15 cents. I sampled some the other day for a man who said he had bought some "honey." He thought it was sour—a very poor quality of sugar, surely.

G. I. WOLF.
Cass Co., Ind., Aug. 28.

Wants to be Immortalized.

Querist No. 58 wants the bee fraternity to inform him—or her—how to fertilize queens in confinement. Now I want to immortalize myself, as Dr. Brown says, by letting the cat out of the bag, and here is the secret:

Just build a bee-proof fence one-half mile high, five miles each way from the apiary, with a dome top. Have a door in the southwest corner; have a fast horse, get on him, and with a black-snake whip get right after the inferior drones and make them flee for their lives to the gate. Place a sign over the gate reading, "No prolific worker drones need apply, as the yellow maidens inside prefer gentlemen drones of their own color." And they must have a pedigree that will designate that they are "just over."

Dewitt Co., Ill. G. POINDEXTER.

Did Moderately Well—Freaks.

Bees have done moderately well in this locality. There was much swarming. White clover yielded honey about two weeks at the last of the blooming period. Bees did not work on it at first. No honey is coming in at present—too dry. Strawberry bloom was workt by the bees. This season I found a queen alive and perfect in a cell, wrong end foremost. She must have grown in the cell reverst because it was tightly sealed when I cut it open. I introduced her successfully and afterward found her

Cash PAID FOR Beeswax

For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 25 cents per pound, CASH; or 28 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly,** for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,

GEO. W. YORK & CO.
118 Michigan st., CHICAGO, ILL.

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CARLOADS—

Of Bee-Hives, Sections, Shipping-Cases, Comb Foundation, and **Everything** used in the Bee-Industry.

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Write for Catalogs, Quotations, etc.

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HUDSON, St. Croix Co., WIS.

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BEE-KEEPERS! Let me send you my 64-page Catalog for 1897.

J. M. Jenkins, Wetumpka, Ala.

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Full Colonies for Sale

—FINE ITALIAN-HYBRIDS—

30 miles northwest of Chicago, in 9 frame Langstroth hives. Bees in good condition. Only a few colonies. Prices—$5.00 per colony; 5 colonies, at $1.75 each; or 10 colonies at $1.50 each.

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Golden Beauties and 3-Banded

Or IMPORTED STOCK.

Silver-Gray Carniolans.

Untested, 50c; Tested, 75c. Safe arrival guaranteed. Address,

Judge E. Y. TERRAL & CO.
26A14t CAMERON, TEXAS.

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Beeswax Wanted.

M. H. HUNT, Bell Branch, Mich.

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—A GENUINE—

Egg Preservative

That will keep Hen's Eggs perfectly through warm weather, just as good as fresh ones for cooking and frosting. One man paid 10 cents a dozen for the eggs he preserved, and then later sold them for 25 cents a dozen. You can preserve them for about **1 cent per dozen.** Now is the time to do it, while eggs are cheap.

Address for Circular giving further information—

Dr. A. B. MASON,
3512 Monroe Street, · TOLEDO, OHIO.

Please mention Bee Journal when writing.

laying worker-eggs. I also found a drone reared in a queen-cell. I have before me, while I write, both the drone and the cell from which I liberated him, and in which he was without a doubt reared. I think I did well on freaks, even if my honey crop is light.

I commenced the season with 80 colonies, and increase to 105, besides losing 20 or more swarms, which partly accounts for the lightness of my honey crop. I work for comb honey. I expect to join the New Union shortly.

ALVIN L. HEIM.

Warrick Co., Ind., Aug. 24.

Bees Not Doing Well.

My wife says we cannot keep bees without the Bee Journal. The bees are not doing very well in this locality this year, or at least I hear nobody boasting about what their bees are doing, myself included. J. W. HUBBELL.

Clark Co., Wis., Aug. 31.

Good Season for Honey and Business.

We have had a good season's trade; in fact, we were unable to keep up with orders for our automatic honey extractors. We have had an excellent honey season so far, and are pushing sales in our home market with splendid success. The prospects for a fall crop of honey were very flattering till the last week or ten days it has been extremely dry and dusty, with no prospect of rain.

VAN ALLEN & WILLIAMS.

Crawford Co., Wis., Aug. 24.

The Wisconsin Honey Crop.

The Buffalo convention came too early for us, as our bees are not only storing honey (4 to 6 pounds each day), but are swarming daily, rather more than at any time during the season.

The honey crop in some locations in the southern part of the State has been uncommonly good, but I don't think it will average as large throughout the State as past seasons. I don't think we will secure more than one carload, altho our number of colonies is a little larger than last season, when we secured two carloads. White clover does not make up for the loss of basswood in most locations. FRANK MCNAY.

Columbia Co., Wis., Aug. 24.

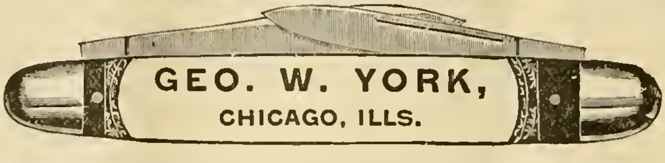
Did But Fairly Well.

Bees in this locality have done but fairly well. The spring was rather cold, also the forepart of summer. The bees did not gather any honey from basswood, and but little from white clover—too wet. They did fairly well on Alsike, and very well on buckwheat, golden-rod and asters. My bees have filled the first set of supers, and are now filling the second. Some of my neighbors' bees have swarmed to excess, while mine have swarmed but little. I think they will average 50 pounds of comb honey to the colony, spring count. Bees are just bringing in the honey to-day by the cartload. I think there will be more or less nectar gathered until frost kills the wild flowers, of which there is an abundance.

Long live the American Bee Journal and its editor. L. ALLEN.

Clark Co., Wis., Aug. 24.

THE "NOVELTY" POCKET-KNIFE!



Your Name on the Knife.—When ordering, be sure to say just what Name and Address you wish put on the Knife.

The NOVELTY KNIFE is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed an AMERICAN BEE JOURNAL reminder, and on the other side, name and residence of the Subscriber.

The material entering into this celebrated knife is of the very best quality; the blades are handforged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring steel, and the finish of handle as described above. It will last a lifetime, with proper usage.

Why purchase the Novelty Knife? In ease a good knife is lost, the chances are, the owner will never recover it; but if the Novelty is lost, having name and address of owner, the finder will return it; otherwise to try to destroy the name and address, would destroy the knife. If traveling, and you meet with a serious accident, and are so fortunate as to have one of the Novelties, your pocket KNIFE will serve as as an identifier; and in case of death, your relatives will at once be apprised of the accident.

How appropriate this knife is for a Christmas, New Year or birthday present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, a lady to a gentleman, or vice versa, a son to a mother, a husband to a wife, a brother to a sister or a gentleman to a lady—the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

How to Get this Valuable Knife.—We send it postpaid, for $1. , or give it as a Premium to the one sending us **three new Subscribers** to the BEE JOURNAL (with $3.00), and we will also send to each new name a copy of the Premium Edition of the book "Bees and Honey." We club the Novelty Knife with the BEE JOURNAL for one year, both for $1.90

Any Name and Address Put on the Knife.

GEORGE W. YORK & CO.,
CHICAGO, ILLS.

Allow about two weeks for your order to be filled.

ITALIAN QUEENS

By Return Mail.

Choice Tested at 65 cts. each; Untested at 50 cts each, or $5.00 per dozen—from now to November 1st.

F. A. Crowell, Granger, Minn.

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YOUR BEESWAX!

UNTIL FURTHER NOTICE, we will allow 28 cents per pound for Good Yellow Beeswax, delivered at our office—in **exchange** for Subscription to the BEE JOURNAL, for Books, or anything that we offer for sale in the BEE JOURNAL. **Or, 25 cts. cash.**

GEORGE W. YORK & CO.,
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H. G. Quirin, of Bellevue, Ohio
—QUEEN-BREEDER—

Offers "Warranted" Golden, or Leather-Colored Queens at 50 cts. each, six for $2.75. Queens are Young, Hardy and Prolific; no disease in my locality. Have received orders from a single bee-keeper within 10 months for as high at 150 Queens. **My Bees speak for themselves.** 36A7t

Please mention Bee Journal when writing.

Convention Notices.

Minnesota.—The third annual meeting of the Southern Minnesota Bee-Keepers' Association will be held in Winona, Wednesday and Thursday, Sept. 15 and 16 1897, opening at 9 o'clock, a.m., each day. All are cordially invited to come and bring their friends.

Winona, Minn. E. C. CORNWELL, Sec.

Wisconsin.—The Southwestern Wisconsin Bee-Keepers' Association will hold its annual convention at Boscobel, October 6 and 7, 1897. All the leading apiarian subjects of the day will be thoroughly discust, and a general good time is expected. All are cordially invited to come and bring their friends.

Cammine, Wis. F. L. MURRAY, Sec.

See the premium offers on page 570!

KLONDIKE

..AND THE..

YUKON COUNTRY

BY L. A. COOLIDGE,

With a Chapter by JOHN F. PRATT, Chief of the Alaskan Boundary Expedition of 1894.

The most authentic description of the

Gold Fields of Alaska

Where they are; what they are like; and how to expeditiously reach them.

Embellished with New Maps and 18 Photographic Illustrations.

225 Pages. 12mo. 50 Cents.

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in all sizes and varieties, to fit any axle. They last forever. Either direct or stagger spoke. Can't break down; can't dry out; no resetting of tires. Good in dry weather as in wet weather. Send for catalog & prices. ELECTRIC WHEEL CO., QUINCY - ILLINOIS.

32E9 *Mention the American Bee Journal.*

HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Sept. 1.—Fancy white 12c.; No. 1 10 to 11c.; fancy amber, 9c.; No. 1, 7 to 8c; fancy dark 7 to 8c.; No 1, 7c. Extracted, white, 5 to 6c.; amber, 4 to 5c; dark, 3½c. Beeswax, 26 to 27c.

There is a little honey selling now, and with this month sales ought to increase. It is also a good time to ship comb, as wax is strong, and resists jars in transit.

Kansas City, Mo., Aug. 10.—Fancy white. 13c.; No. 1. 11 to 12c.; fancy amber. 10 to 11c.; No. 1. 9 to 10c; fancy dark, 8 to 9c.; No. 1, 7 to 8c. Extracted. white, 5 to 5½c; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax. 25c.

There is very little demand for honey this hot weather, but will improve with cooler weather.

St. Louis, Mo., Aug. 9.—Fancy white, 12 to 12½c; No. 1, 11 to 11½c.; fancy amber. 10 to 10½c.; No 1. 9 to 9½c fancy dark, 8 to 8½c; No. 1, 5 to 7c. Extracted, white, 5 to 5½c; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 24 to 24½c.

The weather so far this season has been too warm for the free movement of honey, but with the present prices on sugar we think there should be a good demand for extracted honey at the above prices. One car of 24,000 pounds sold since our last quotation on basis of above prices. Beeswax finds ready sale at 24c. for prime, while choice stock brings a little more.

San Francisco, Calif., Sept. 1. — White comb, 1-lbs., 7 to 9c; amber comb, 4 to 6c. Extracted, white, 4¼ to 4¾c.; light amber, 3½ to 4c.; dark tule, 2¾c. Beeswax, fair to choice 23 to 25c.

There is a moderate amount of business doing in extracted on export account at fairly steady figures, quotations remaining unchanged. Comb is meeting with small custom for local use. Arrivals for the season to date foot up about 2,000 cases, as against 1 000 cases for same time in 1896. Shipments aggregate 1,600 cases, as against 200 cases a year ago.

Cleveland, Ohio, Aug. 31.—Fancy white, 13c.; No. 1, 12c; fancy amber, 8 to 9c.; fancy dark, 6 to 7c Extracted, white, 6½ to 7c.; amber, 5 to 5½c.

Fancy white is in demand, but very little is coming in.

Philadelphia, Pa., Sept. 3—Fancy white, 13½ to 14c.; No 1, 12c. Extracted, white, 6c.; amber, 4 to 5c; dark, 4c. Beeswax, 24c.

No arrivals of dark or amber honey yet to any extent. Reports from all parts show large yields of honey in the East.

Cincinnati, Ohio, Aug. 9.—Fancy white. 11 to 13c.; No. 1, 10 to 11c.; No. 1 amber, 7 to 10c. Extracted, white. 5 to 6c.; amber, 4 to 5c.; dark, 3½ to 4c. Beeswax, 20 to 25c.

Demand is fair so far for best qualities of comb honey. We have hardly ever yet, at this time of the year, disposed of as much honey as we did this season. Arrivals have been liberal so far.

Albany, N. Y., July 31.—Fancy white, 11@12c.; fancy amber, 7@8c.; fancy dark, 6@8c.; white, extracted. 5c; dark, 4c.

But very little is doing in honey this month. There is a small stock of inferior comb honey on the market, and quite a little extracted. Bees are said to be doing nicely in this section.

Buffalo, N. Y, Sept. 1.—Fancy white, 11 to 12c; No. 1, 9 to 10c.. fancy amber, 8 to 9 c.; No. 1, 7 to 8c.; fancy dark, 6 to 7c.; No. 1 5 6c. Extracted. white, 5 to 6c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 22 to 26c.

Honey is selling just a little better, but we advise moderate shipments till October and November, when liberal amounts can be sold.

Milwaukee, Wis., Sept. 2.—Fancy white, 12 to 13c.; No. 1, 11 to 12c; fancy amber, 8 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 4 to 4½c. Beeswax, 25 to 27c.

The receipts of new comb honey begin to arrive, and of very nice quality. The extracted is improving in quality. There is danger of not allowing it to cure before shipping. The demand is only moderate, but equal to former seasons, as while fruit is plenty honey is not wanted so much. Later there must be improved demand.

Minneapolis, Minn., Sept. 1. — Fancy white, 11 to 13c.; No. 1, 10 to 11c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c; fancy dark, 8 to 9c.; No. 1 dark, 6 to 7c. Extracted, white, 5 to 6c. Beeswax, 23 to 25c.

Only strictly fancy stock wanted in this market. Market is firm but sales are slow.

Detroit, Mich., Aug. 31—Fancy white, 11 to 12c.; No. 1 white, 10-11c. Extracted, white, 5½ to 6½c. Beeswax, 25 to 26c.

No dark honey is yet offered. There is a steady demand for fancy white. Extracted is of good quality.

New York, N. Y., Sept. 1.—Fancy white, 12c.; No. 1, 11c.; fancy amber, 10c.; No. 1, 9. Extracted, white, 5 to 5½c.; amber, 4½ to 4¾c. Beeswax, 26c.

Indianapolis, Ind., Sept. 1.—Fancy white. 11 to 13c.; No 1, 9 to 10c. Extracted, white. 5 to 6c.; amber, 4 to 5c. Beeswax, 25c.

In an experience of eight years I have never before seen the demand so good for comb honey as it is just now. Consumers claim that honey is better this year than usual. Extracted honey is selling slowly.

Boston, Mass., Sept 1.—Fancy white, 12 to 13c.; No. 1, 12c.; fancy amber. 10 to 11c. Extracted, white, 6½ to 7c.; amber, 6 to 6½c Beeswax, 27c.

Honey is now being received in small lots and meeting a fair demand at above prices. Demand will naturally increase with cooler weather, and with the short Eastern crop, it should clean up in good shape.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co.. 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN.
120 & 122 W. Broadway.

Kansas City, Mo.
C. C. CLEMOMS & Co., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & Co.. 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
A. B. WILLIAMS & Co., 80 & 82 Broadway.

St. Louis, Mo.
WESTCOTT COM. Co.. 213 Market St

Minneapolis, Minn.
S. H. HALL & Co.

Milwaukee, Wis.
A. V. BISHOP & Co.

Boston, Mass.
BLAKE, SCOTT & LEE, 57 Chatham Street.

Detroit, Mich.
M. H. HUNT. Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. McCULLOCH & Co., 380 Broadway.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central Avs.

Bee-Keepers' Photograph.—We have now on hand a limited number of excellent photographs of prominent bee-keepers—a number of pictures on one card. The likeness of 49 of them are shown on one of the photographs, and 121 on the other. We will send them, postpaid, for 30 cts. a card, mailing from the 121 kind first; then after they are all gone, we will send the 49 kind. So those who order first will get the most "faces" for their money. Send orders to the Bee Journal office.

A Book Recommended by Dr. Gallup.

THE NEW METHOD

In Health and Disease.

By W. E Forest, M. D., 12th Edition. Revised, Illustrated, and Enlarged. This is the greatest and best work ever publisht as a HOME PHYSICIAN, and as

A Guide to Health.

It makes the way from **Weakness** to **Strength** so plain that only those who are past recovery (the very few) need to be sick, and the well who will follow its teachings **cannot be sick.** It is now in many families the only counsellor in matters of health, saving the need of calling a physician and all expenses for medicines, as it teaches Hygiene and the use of Nature's remedies, **not a drug treatment.**

All Chronic Diseases

are considered, and there is not a curable disease that has not been helpt by some of the "*New Methods*" given here; even those who have been pronounced **Consumptive** have been entirely cured. While for **Rheumatism, Indigestion, Dyspepsia, Constipation, Dysentary, Liver and Kidney Troubles, Catarrh, Emaciation, General Debility, Nervous Exhaustion, Diseases Peculiar to Women,** etc., the methods are sure, and can be carried out at one's own home and with little or no expense.

A Guarantee.

So confident are the publishers of the results, that they offer to refund the money to any one who will try "New Methods" thoroughly, if the book is returned in good condition.

The New Edition

is illustrated with a number of Anatomical plates from the best English work on Anatomy publisht, and others made expressly for this work; contains 300 pages, printed on fine calendered paper, and although the price of the first edition (much smaller in size and without illustrations) was $2.50, we sell this at $1.00, postpaid.

PREMIUM OFFERS.

For sending us two new subscribers to the Bee Journal for one year, we will mail you the book free as a premium, or we will mail it for sending your own advance renewal and one new yearly subscriber. This is a wonderful premium offer. Address all orders to—

GEORGE W. YORK & CO.,
CHICAGO, ILLS.

Queens and Queen-Rearing.—If you want to know how to have queens fertilized in upper stories while the old queen is still laying below; how you may *safely introduce* any queen, at any time of the year when bees can fly; all about the different races of bees; all about shipping queens, queen-cages, candy for queen-cages, etc.; all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know—send for Doolittle's "Scientific Queen-Rearing" — a book of over 170 pages, which is as interesting as a story. Here are some good offers of this book:

Bound in cloth, postpaid, $1.00; or clubbed with the BEE JOURNAL for one year—both for only $1.75; or given free as a premium for sending us *two* new subscribers to the BEE JOURNAL for a year at $1.00 each.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

FREE —A Copy of— **Successful Bee-Keeping,** by W. Z Hutchinson; and our 1897 Catalog, for 2-cent stamp, or a copy of the **Catalog for the Asking** We make almost **Everything** used by **Bee-Keepers**, and at **Lowest Prices.** OUR

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are warranted

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The American Bee-Keeper

[monthly, now in its 7th year]

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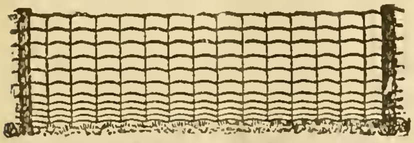

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Contributed Articles

Specialized Development in Honey-Bees.

BY PROF. A. J. COOK.

Since the demonstration of the fact of the evolution of animals and plants from lower forms, men have everywhere been studying specialized organs, and, no wonder, for it brings to us a wonderland unsurpast. Every naturalist knows that organs are more or less modified, depending upon their use. The functional use of organs depends largely upon the varied habits of the animal or plants. A plant or animal that does much will give us the most interesting examples of modified organs and varied functions.

To all students of the common honey-bee the fact of their marvelously-varied functions is well known. The bee gathers honey, which it digests and stores. It gathers pollen which it digests, regurgitates and feeds to the brood and also the queen and drones. They also gather wax by means of which they glue their combs to the hive, and cover over offensive matter in the hive. They also use this to stop up cracks, and smooth over rough places. They secrete wax, which is very interesting in its make-up, transfer it from the under side of their abdomen, where it is secreted, to the mouth, where it is kneaded and fashioned into the most wonderful mechanism known to the animal kingdom—the beautiful, matchless honey-comb.

Thus, we see that bees really perform a variety of operations which are hardly excelled even by man himself. We have always supposed, indeed, that the wonderful honey-comb could not be duplicated even by all the ingenuity of man. If Mr. Weed does succeed in fashioning an article equal to the natural comb, he will indeed do a wonderful piece of work. Even then, he has to get the wax from the bees. I doubt if man ever does succeed in making an article so thin and delicate as is the natural honey-comb.

Every naturalist believes that modified function, and modified structure, have always gone hand in hand. Thus we see that the bees must have wonderful structural modifications and it is to these that I wish to direct the attention in this and succeeding articles that will appear in the American Bee Journal.

I will first call attention to the wonderful developments in parts of the legs of bees, and will first refer to and describe the marvelous antennæ-cleaners on the four legs. In order to do this the more satisfactorily, we will have to discover, if we may, the use of the antennæ. These horn-like organs, which are appended to the head of all insects, must be very important. They are as prominent in the insect as is the nose to the man. We have discovered of late, indeed, that they have exactly the same function. I think we may safely say that the antennæ are more than nose, that they combine three organs in one—nose, ears, and touch organs. That a tactile or touch sense exists in the antennæ, is very patent to any one who carefully observes this insect, as it seems to feel its way, ofttimes, by the use of these organs. There is some reason to believe that the antennæ also answer as ears, or at least that they detect vibrations, and thus are practically the same as hearing organs.

That the antennæ are olfactory organs, or used to detect odor, there is hardly any difference of opinions among scientists. There are little pits which contain projections, all lined or covered with very sensitive membranes in the antennæ of most insects. These are much more numerous and better developt in insects like the bees which have to search for their food, and are probably directed toward it through the sense of smell. Thus we are not surprised that drones, queens, and workers among bees have these antennæ pits greatly developt. The workers have to find the nectar in the flowers; the drone as he flies forth to mate must search for the queen, and the queen in turn is eager to find the drone. It is probable that each of these kinds of bees is directed through the antennæ.

Rev. H. A. Winter, of Wisconsin—See page 583.

Wasps, also, in searching for insects to store their cells, that their young may have food, doubtless use their antennæ in the same manner that the bee does its antennæ. As the bee rushes into a flower in search of nectar, it is almost certain to get its antennæ dusted with pollen—or, in other words, to get its nose dirty. Thus we see that the bee, as well as the boy, may need to wipe its nose. It has no regulation pocket handkerchief, but has a much more novel and interesting arrangement by which to perform this important work. It is the antennæ-cleaner on the foreleg. At the base of the first tarsal joint—the tarsi are the last five joints on the leg of the bee—there is a concavity—more than a hemi-cylinder—lined with the most delicate hairs, and just the size of the antennæ. Projecting from the lower end of the tibia—the joint of the leg next above the tarsi—is a spur which may, at the will of the bee, close directly over this groove already mentioned. The inner face of this spur consists of a membrane more delicate than the finest chamois skin.

Now, we are prepared to note just how the bee wipes its nose, or rather cleans its antennæ. It throws its front leg forward and receives the base of its antennæ in this groove, closes down the spur, and draws the antennæ through. The brush and chamois-skin-like membrane removes every particle of the pollen, which now rests on the side of the antennæ-cleaner very much as the scraping of the shoe or boot rests on the foot-scraper by the side of the door. There is a difference, however. The dirt on the boot-scraper is only good to be pusht one side. This pollen, on the other hand, is valuable food, and the bee wishes to save it.

The bee next takes this part of the foreleg and draws it through between the first two joints of the tarsi of the middle legs, and thus all this pollen is gathered on these brushes of the middle legs. The bee next takes each middle leg and rubs it over the outside of the pollen-basket on the hind legs, and thus the pollen is packt, ready to be conveyed to the hive. Thus the bee wipes its nose and gets its dinner at one and the same time.

The wasp collects its mud to build the brood-cell in the dust, and so renders its antennæ foul. Not with useful pollen, but with annoying dirt. But before the wasp seeks its insect or spider with which to people its mud-cell as store for its young, it must clean its nose or antennæ. This it does very much as did the bee. I will describe it in the next number of the American Bee Journal. Los Angeles Co., Calif.

Enforcing and Securing Laws Against the Adulteration of Honey.

BY CALEB L. SWEET.

I belonged to the Old Union for a time, but as I was not having any trouble with my neighbors in the direction in which it was working, and as it appeared that about all that was necessary was to bring out the decisions of courts already obtained, to silence the enemy, I had quit paying, and so did not have a chance to vote on the question of amalgamation.

I am very much in favor of making an attack on the adulterators. I do not think it will take so very much money to make quite a fuss about it. Every county has a prosecuting attorney, and every State, and the United States also. It will be necessary to furnish the evidence, perhaps, and hire detectives, but I should think we would not have to engage special counsel. The Old Union made no move until some member was attackt, and then of course had to engage special counsel.

There is, I believe, a law in Illinois requiring the judges of the circuit and county courts to recommend to the legislature such laws or amendments as they may discover to be necessary for the people. Now, suppose you have found an adulterator of honey, and you have an abundance of proof, and you bring him up before one of the circuit judges of Cook county, under the strongest law you can find in force in Illinois, and the law is not strong enough to take him all in, but only a part of him; or, that he cannot be punisht sufficiently, you have brought the case to the notice of the court, and it would be the duty of that court to bring it to the notice of the next legislature. So, by kicking up a fuss, you have got assistance to get a better law if the present law is not sufficient.

Or, suppose that the law of Illinois or California is all that is desired, and you drive them out of one of these States, or both, and they take refuge in some other State, it would attract attention and make it less trouble to get a law in that State against adulteration of honey. Cook Co., Ill.

Feeding Back Extracted Honey, Etc.

BY G. M. DOOLITTLE.

QUESTION.—I have read somewhere that, if I were to run an apiary for extracted honey, during the harvest of white honey, and feed the same back to the bees to put into sections, said extracted honey would sell in the section form for enough more to give me a big profit. Is this a fact? If so, how and when should extracted honey be fed back in order to procure comb honey?

ANSWER.—The feeding of extracted honey in order that comb honey may be obtained is something that has been tried by very many of our best apiarists, and still remains an unsolved problem with some of those who have tried it. Some have reported success and others a failure; but, if I am correct, those who consider the thing a failure far outnumber those who consider it a success.

From my experience in the matter, I should say if any one must feed extracted honey to his bees in order that comb honey many be produced, it should be fed in the spring, in order to hasten brood-rearing, thus securing multitudes of bees in time for the honey harvest; then, by putting on the sections at the right time, a large crop of comb honey may be secured, if the flowers do not fail to bloom or yield honey.

My experience has also led me to think that it is better to secure the honey in the sections in the first place, rather than have it stored in combs, and then thrown out with the extractor that we and the bees may go through with much labor and stickiness to secure the same thing which we might have secured without all this trouble.

The practice of feeding back is on the principle of producing two crops to get one, and no one will argue that such a course would pay in the long run. Even under the most favorable circumstances, to finish nearly-completed combs of honey, I cannot make it pay if I count my time as anything. At the close of certain seasons, when I would have a large number of unfinisht sections, many of which were so nearly finisht that a few ounces of honey would apparently finish them, it seemed that it might pay to feed a little extracted honey to finish such; but after a careful trial of the matter, covering a period of ten or more years, I finally gave it up as a bad job, and have not fed back a pound of honey during the past six years.

If any one should wish to satisfy himself that feeding back will not pay, he can get the best results by feeding the extracted honey right at the close of the early white-honey harvest, so that the bees are kept active. It is thought best by some to take away all combs except those which have brood in them, when preparing the colony for feeding back; but if all combs are filled with sealed honey, except that which the brood occupies, there is no advantage in taking away the combs, that I can see. The extracted honey should be thinned to a consistency of raw nectar, by adding the necessary amount of warm water, thinning only the amount needed for one feeding at a time; for if the thinned honey is allowed to stand long in warm weather, it is quite liable to sour and spoil.

Then, there is another item against feeding back, which is that, from some reason or other, this fed-back honey is far more likely to candy or become hard in the comb than is that put in the comb at the time it is gathered from the field. When first taken from the hive it looks very nice and attractive; but when cool weather comes on in the fall it assumes a dull, unattractive appearance, thus showing that the honey has hardened in the cells; while comb honey produced in the ordinary way is still liquid, and will keep so for from one to three months after the fed-back article has become almost unsalable.

COMBS OF HONEY FOR NEXT SEASON.

QUESTION.—I have on my hives about 200 combs, very full of honey, which I wish to use for next year's increase. I am at a loss to know what to do, so ask if it would be advisable to throw the honey out with the extractor and use the empty combs, or would it be best to use the full combs of honey? I expect to make my increase by natural swarming.

ANSWER.—If extracted honey brings a good price in your market, and the honey in the 200 combs is of good quality, then my advice would be to extract the honey and sell it; for the old saying, "A bird in hand is worth two in the bush," is generally correct.

If, on the other hand, extracted honey drags heavily, at a price hardly above the cost of production, or the honey in the combs is of a quality not fit for market, then I would store the combs of honey away till spring (allowing the bees to protect them till there was no danger of damage from the larvæ of the wax-moth), when I would use these combs for building up colonies in the spring, by exchanging them with the colonies for combs that they might have which were empty, or nearly so. In this way you will get this honey converted into brood, which brood, when hatcht into bees, will store for you large quantities of honey. If the colonies in the spring had no need for this honey, then I would use the combs of honey something as you propose, hiving new swarms on them. If the combs are only from one-third to one-half full of honey, then you may secure the best results by hiving your swarms on the full number of frames, and putting the sections on at the time of hiving. But if completely full from bottom to top, it will be better to use only from four to six combs to the hive when hiving the swarms; for, if given a full hive of full combs of honey, the bees may not carry much of the honey to the sections, as they generally will do with the whole where only a few are used.

If the bees do not immediately start to carrying the honey from these full combs, the result will be little or no honey in the sections, and little brood and few bees in the hive in the fall. But should the honey in the 200 combs be of inferior quality, or of dark quality, or both, then the only thing to do with it is to extract, or use it for spring seeding; for if such inferior honey is given at swarming time, more or less of it will find its way into the sections, thus injuring the sale of the honey, and giving yourself a bad reputation.—Gleanings.

⁂

Comb Foundation—Is Its Use Profitable?

BY S. A. DEACON.

A great deal has appeared from time to time in works and journals devoted to bee-keeping, concerning the very great advantage of using full sheets of foundation. Amongst other claims so frequently urged in favor of its use, is "straightness of combs." This, I contend, is no advantage proportionate to its cost; starters, made by running molten wax along the upper bars by means of damp strips of wood will insure quite sufficiently straight combs, and can be done as easily and as rapidly as *fixing* costly embost starters. The only advantage I can see is the exclusion of drone-cells.

When the supposition existed that it took 20 pounds of honey to form one pound of wax, the arguments in favor of its use were slightly feasible, but careful experiments have conclusively demonstrated the fact that less than *six* pounds of honey are required to make one pound of comb. Experiments have also shown that altho artificial comb is provided by the bee-master, the secretion of wax still goes on, and that the scales fall wastefully to the floor of the hive where they would otherwise be used in the building of comb.

Another great argument in favor of its use is, of course, the saving of time. Is this as great as is generally assumed? Take two exactly strong colonies at the commencement of a good honey-flow; give the one ¼-inch starters, and to the other full sheets of foundation. Would there be any appreciable difference in the time the hives would be furnisht with completed combs? And even should there be a slight saving in time, would it it be proportionate to the extra cost?

What is "foundation?" It is by no means, as many suppose, the equivalent of completed combs. It is, after all, merely the septum or base; yet how many thousands of bee-keepers, who annually lay out large sums in the purchase of foundation, are aware of this fact? I, myself, deceived by the misleading expressions one is always reading about—"*drawing out the foundation*"—and "*drawing out the side-walls*"—have for years past foolishly imagined that the "foundation" contained sufficient wax to perfect the comb, and that the bees actually "drew out," or pulled out, or by some unexplained means, extended the slightly-elevated walls of wax into full-length cells! Let any one who entertains this silly and most unreasonable belief, take two sheets of foundation of exactly equal weight, put one in a hive to be "drawn out," and when so "drawn out" take it out, clear it of all foreign matter, and weight it against the other. Now, if the completed comb were formed by simply "drawing out" the supposed extra sufficient wax around the base of the cells (as we are led to believe to be the case), they should, of course, both weigh precisely the same; but I fancy those who try this very simple experiment will be somewhat surprised at finding that the additional wax necessarily contributed by the bees to complete the comb has nearly doubled its weight, and that all the apiarist had furnisht his bees with was the septum or base, and for which the bees, could they make themselves intelligible to their owner, would hardly thank him, so little would it really have aided their labors.

Before me lies the catalog of an English bee-appliance manufacturer—a leading man in the trade—and, under "Foundation," this is the ridiculous nonsense with which he seeks to gull his readers:

> "All foundation made by me has the walls already started; the machine is so constructed that no pressure whatever is placed upon the walls, consequently they remain soft and plastic, ready for the bees to work out; with this foundation combs are built out in a few hours—12 to 24 hours sooner than with the ordinary foundation!!!"

Did ever any one hear such preposterous rot? Did ever an observant apiarist see bees "drawing out" or "pulling out" these stumpy sidewalls, be they ever so plastic? If so, how do they do it? In the first place, is it *in their nature* to thus elongate the comb, and thus form cells, or are the walls of the cells not built up by the laboriously adding together of minute laminæ of wax, even as a mason adds brick to brick in the construction of a wall? It is true, the particular maker I quote avoids the common jargon about "drawing out," and substitutes the somewhat less objectionable phrase, "working out." However, one is led to infer that in buying foundation one acquires all the material necessary for the construction of perfect combs—whereas, all the buyer gets is the septum—or really the "foundation;" and as the bees have to manufacture half the weight of the perfect comb themselves, is the use of foundation, I ask, really as advantageous as it is popularly supposed to be?

Carefully constructed experiments by that able and indefatigable English bee-master, Mr. Samuel Simmins, have demonstrated beyond doubt that—to quote his own words—"probably less than five pounds of honey are consumed in actually producing one pound of wax." Now, seeing that before the combs are perfected the bees have had to add about the same amount of wax as is contained in the bought foundation, the actual loss in honey, by allowing them to be their own masons, is a trumpery 2½ pounds of honey, worth say 12 cents, to a whole brood-box of comb! For Simmins has workt out that about eight frames (14 inches by 8½ inches) of new comb will give one pound of refined wax.

I am ready to admit that there may be an advantage in using full sheets of extra-thin surplus foundation in sections, tho considering the extraordinary rapidity with which comb is built during a strong honey-flow, even that is open to doubt.

"But," I hear some one say, "what an advantage does it not give us with wired foundation for extracting?" Yes, granted. But supposing the bees are given wired frames and starters, and the wires are, as a precaution, waxt, won't the bees build, as it were, the wire themselves into the comb? I have never tried it, but I rather think so.

The two following paragraphs—the first from the price-list of a bee-appliance purveyor in Nebraska, and the other from page 93 of Simmins' work, "A Modern Bee-Farm"—suggest the question, "How can a man farm his bees and keep sane?"

> "For the brood-combs," says the Nebraskan, "we prefer that of about five or six feet to the pound, it having wax enough in the partly-raised walls to enable the bees to finish the comb without any additional wax."

Rubbish! and he knows it. If we *are* in the "bug-business" we are not necessarily idiots.

Now, for the opinion of Mr. Samuel Simmins:

> "There is no advantage in having high sidewalls in super foundation, as I find the same nearly all scraped off to the base before actual building is commenced by the bees. Indeed, what I should consider perfect super foundation would have nothing whatever but the bare base of the cells."

This has a more common-sense ring; and if Mr. S. is right, as I believe him to be, these sidewalls on foundation, instead of proving an advantage, are positively a drawback—a hindrance to speedy "*drawing out*" or perfecting of the combs.

What on earth are your Taylors, your Hutchinsons, your Doolittles, and your bee-periodicals doing, to allow at this time o' day such ridiculously erroneous opinions to obtain concerning such simple matters as this? Verily, you seem to be all straining at gnats and swallowing whole caravans of camels—endeavoring in your State apiaries at great cost of labor, money and time, to solve intricate problems, more interesting to the scientific man than to the practical honey-producer, and allowing the latter to remain in ignorance concerning such rudimentary facts in his calling as that I have herein ventured to comment upon?

Let me ask you, Mr. Editor, to be good enough to conclude these hastily written observations, by appending to them the paragraph on "Comparative Cost of Foundation," to be found on page 208, of Mr. Simmins' work, "A Modern Bee-Farm." I think it will open the eyes of many whose annual outlay for "foundation" is no mean item on the debtor side of their books.

South Africa.

[The paragraph requested by Mr. Deacon, from Mr. Simmins' book, reads thus:—Editor.]

COMPARATIVE COST OF COMB FOUNDATION.

In the course of the experiment I found that about eight standard frames (14 inches by 8½ inches) of new comb will give one pound of refined wax. It is surprising what a large amount of refuse is left after melting the most beautifully white combs, so that the actual weight of wax obtained is much less than that of the orignal combs. *Observe this:* one pound of wax, costing the producer less than 1*s.* 6*d.*, fills eight frames with finisht comb. To do this with foundation 1⅜ pounds of that article is required, costing in hard cash at the least 2*s.* 6*d.* for the base only; to this the bees add considerable of their own production before the combs can be completed; making the total cost much over 3*s.* Facts are stubborn things, and cannot be ignored.

Who Shall Keep Bees?—Will it Pay?

BY HON. GEO. E. HILTON.

In all industries a great deal depends upon adaptability, but I question whether we should lay too much stress upon adaptability.

The things that we need, to bring the best results to our homes and our business, we should adapt ourselves to.

I once listened to a lecture given by Prof. Pattengill, entitled "Gumption with a big G," and I thought even bee-keepers could learn a lesson from that talk.

Now I believe the most the average farmer needs, to keep bees, is a little "gumption." We would hardly think we could get along without a few hens, that we might "lay our own eggs," or a cow, that we could make our own butter, and I am sure it requires no more tact or natural ability to attend to a few colonies of bees that we may produce our own honey, and not half the work.

And then suppose the weather should be favorable and we should produce more than we cared for in the family, or cared to give our friends. I never knew a fair quality of comb honey to sell for less than 10 cents a pound. What have you on your farm that would pay a larger profit than that of honey? I contend there is nothing.

But aside from the honey they produce, I contend that every farmer should keep a few colonies of bees for the purpose of fertilizing the early spring bloom.

Later in the season when the insect kingdom has become more numerous, it does not matter so much. Take, for instance, seed clover. We get no seed from the first crop because the bumble-bee has not developt in sufficient numbers to fertilize the blossoms, while the Alsike, which is visited by the honey-bee in large numbers, produces an abundance of seed from the first crop; and what holds good with the clover is equally true with other seed and fruit-producing vines, shrubs and trees.

Years ago those men in the vicinity of New York and Boston who made a specialty of raising cucumbers under glass for the winter market, fertilized all their vines by hand. This was done by transferring the pollen from one blossom to another upon a little stick; something like a toothpick, and if they succeeded in fertilizing 40 or 50 per cent. of the blossoms they thought they were doing remarkably well. Finally one of them, with a little more "gumption" than the rest, and being somewhat familiar with the functions of the bee as designed by the Creator, placed a colony of bees in one of his greenhouses, and, as many of the "I told you so" class of people would say, sacrificed that greenhouse upon the altar of experiment. The result was marvelous, and to-day, or during any of the winter months, you can find a colony of bees in every greenhouse, doing the work of many hands, and instead of from 40 to 50 per cent. of the blossoms being fertilized as by hand, the bees now fertilize from 80 to 85 per cent. Then as to the question, who should keep bees? I answer, every one who depends upon a blossom-producing product, and who depends upon that product for a livelihood or sustenance, whether he cares for the honey they produce or not.

Another question that is frequently askt is, Will bee-keeping as a business pay? In fact, about the first question that arises in the mind of a person about to embark in a new business enterprise is, Will it pay?

Answering the query I will say, Yes, conditioning that answer, however, upon the laws of success in any other business undertaking. No business will pay unless it is carried on in a business-like way. Bee-keeping is no exception to the rule. Methods must be employed and results workt for if success is expected. If a man expects bees to pay when he keeps them in hollow trees, or set in some out of the way place and never looks after them, except to put the new swarms into soap-boxes or nail-kegs, and brimstone them in the fall to get the honey, he will be disappointed. I don't mean him when I say bee-keeping will pay.

If another is too shiftless to supply the bees with proper appliances for storing honey in marketable form; if he expects them to board themselves, do all the work, and put the money in his pocket, while he sits in the shade or holds down some dry-goods box "up at the corners," I don't mean him when I say bee-keeping will pay.

If a man don't know or don't care to learn the reason in the divine economy for having drones, and know or care to know how to prevent the increase of that part of the colony, which, in excess of requirements are only consumers, I don't mean him when I say bee-keeping will pay.

All these men had better buy what honey they can afford.

But to every one, be it man or woman, who is adapted to it by habits of thought, study and observation, and who has energy enough to master the essential principles, it will richly repay for all the thought and time required to be devoted to it.

Because some men follow dairying after a slip-shod, happy-go-easy method, and fail to make money out of it, does not prove that dairying will not pay. And because a good many fail to realize all their fond anticipations of coveted sweets by the same methods in the apiary, it does not follow that success will not crown the efforts of the careful, prudent and intelligent bee-keeper. It will pay to keep bees until every town in this broad land is supplied with enough honey te meet the demand.

I venture the assertion that not half the towns in the United States are supplied with honey six months in the year. If every bee-keeper will meet the wants of consumers in his and adjoining towns, it will surprise him what an amount can be sold.

But for all the honey-producers to rush their surplus crop off to the large cities to glut the market, while hundreds of people in their own townships don't know the taste of honey from glucose, because they so seldom taste it, is a sure way to make bee-keeping unprofitable.

I have no doubt that tons of honey could be sold in every State where hundreds of pounds are now sold, if the matter was properly workt up by the local bee-keeper. This is something every bee-keeper should take a personal interest in, for it is certainly one thing to raise a crop of anything, and another to market it to the best advantage. Almost every week brings me letters from bee-keepers that have from 50 pounds upwards that they want to sell. Now, if I buy it I must have a margin on wholesale prices, while in nine cases out of ten it could be sold at or near home at retail prices. I feel just like urging upon bee-keepers the necessity of working up their home markets, and depend less upon the "markets of the world." (From my standpoint we have had too many markets the past few years.)

I am not going to say that my plans and methods, or the appliances used by me are the best, but when I look around and see the many slip-shod methods that are pursued by those who make bee-keeping a failure, I very naturally come to the conclusion that my methods, being successful, are at least an improvement, and "what other folks can do, why with patience may not you?"—Michigan Farmer.

Newago Co., Mich.

CONVENTION PROCEEDINGS

Report of the Northern Illinois Convention.

BY B. KENNEDY.

The annual meeting of the Northern Illinois Bee-Keepers' Association was held Tuesday, Aug. 17, 1897, at the Court House in Freeport. The meeting was called to order with Pres. S. H. Herrick in the chair. About 50 were present, and a very good meeting was held.

REPORTS OF THE PRESENT SEASON.

Pres. Herrick then called for a report from each member on the following questions: How many colonies had you at the beginning of the honey harvest? How many colonies now? How much honey have you extracted, and, approximately, how much have you to extract for the present crop? How much comb honey?

The responses showed 843 colonies, spring count, and 1,164 colonies now—an increase of 321 colonies, with 22,210 pounds of comb honey, and 28,280 pounds of extracted; nearly all of which is fine white clover honey. The crop was better than it has been for several years, tho not on an average with the best honey-years.

Following the reports was the election of officers for the next year, which resulted as follows: Leroy Highbarger, President; S. H. Herrick, Vice-President; B. Kennedy, Secretary; and O. J. Cummings, Treasurer. The next annual meeting will be held at Freeport.

EMPTY COMBS—LAYING WORKERS.

QUES.—What is the best method of preserving empty combs from worms? ANS.—Clean combs or a tight room.

QUES.—What is the best method of getting rid of laying workers and yet preserve the colony? ANS. by O. J. Cummings:—Take the frames all out of the hive, carry them a good distance from the hive, shake the bees all off in the grass, and remove all but one comb. Take a frame having eggs from some other colony to replace the one left out. The laying workers seldom get back to the hive, and the working-bees rear a queen from the eggs placed in the hive.

ANS. No. 2.—Remove two frames from other colonies containing eggs and brood, together with the bees on them, and place side by side in the queenless colony. The next day introduce a caged queen between the two frames.

CLIPPING AND REARING QUEENS.

QUES.—Does it pay to clip queens? ANS.—The prevailing opinion is that it does pay.

QUES.—Can bees rear queens from eggs one week old? ANS.—Yes; but poor queens.

QUES.—Can bees move eggs? ANS.—Yes.

BEST PACKAGE FOR EXTRACTED HONEY.

QUES.—What is considered the best package to market honey in? ANS.—For wholesale dealers, 60-pound cans; for retail, 1 pint cans, or ½ pint glasses.

PREVENTING SECOND SWARMS.

QUES.—What is the best method to prevent second swarms? ANS.—The Heddon method, or cutting out queen-cells.

B. KENNEDY, *Sec.*

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Now is the Time to work for new subscribers. Why not take advantage of the offers made on page 586?

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Colony Queenless—"Never too Old to Learn."

In looking thrugh a colony yesterday that did not appear to be doing well, I found they had no queen. Where and how shall I proceed? I took three full frames of comb from another colony with some brood, but not much, and gave to them to build them up. I gave them as many bees on those combs as there was of themselves. I rather think that I am almost too old a man to commence with bees, being beyond 72 years. But there is nothing like trying. MICHIGAN.

ANSWER.—I regret to say that by some means your letter was mislaid and not promptly answered. Fortunately the delay makes no difference, for you had already done the wise thing in giving brood to the queenless bees. As that was early in August, and as in all probability there were eggs and young larvæ among the brood given, the bees would at once start queen-cells, and in three weeks or so a young queen would be laying. Of course, you would have gained time if you could have given them a laying queen, or even a sealed queen-cell, but probably you had neither of these. I don't believe a man with half a gross of years behind him is any too old to enjoy the fascinating pursuit of bee-keeping, and I wish you many years of enjoyment in the learning.

A Colony with "Buckelbrut."

I do not see much written in the Bee Journal by the Canadians, so I guess we must all be good bee-keepers! But I must own up that I am stuck at present, and almost at the swearing point, for I have just been looking at my bees, and cannot tell what is the matter with two colonies. I will try and explain as well as I can.

I have been three years at bee-keeping, have eleven colonies; I started with three. I have poor luck, you will see, but I like working with them, and am going to keep at it until I do worse than I have. I read the Bee Journal over every time. I think the writers do not hold together enough—it almost makes a fellow discouraged, as it would make a fellow keep changing all the time. Now, to my question:

I think it is a first swarm. At first it seemed to be working splendidly; I was just thinking I would get a lot from it. When I hived it I gave it two full combs, three full sheets, and the rest about two inches. I thought it was about time to put on a top story, when, behold, I lookt at it and it lookt like a warty toad. It was all over patches like a lot of warts, and they seem to be all drones. I dug for the house, got my knife, and cut them all off; I gave them two more full combs, and to-day I have lookt at it again, and they are doing the same caper. I guess it is busted for this summer, but I want to be ready for it next summer.

I went over all the rest—eleven colonies—and I found another doing the same thing. The first one had a queen-cell when I cut them out. I was sorry I cut it out. Did I do wrong by so doing? ONTARIO.

ANSWER.—1. You have given us a very graphic description of the presence in the hive of something for which we have no single word in English, but what the Germans call *buckelbrut*. It is drone-brood in worker-cells, which, when sealed over, the cells being more or less irregularly filled, have a very warty appearance, altho perhaps you are the first one who has thus described it. A case of that kind is "busted for the summer," sure enough, and "busted" for all time if left to itself. For either laying workers are present or a drone-laying queen. Nothing but drone-brood being present, there is no possibility of their rearing a queen, and your cutting out queen-cells did neither harm nor good, for nothing but drone-brood could be in such a cell. It is very hard to get such a colony to accept a laying queen, but if you give them a virgin queen just out of the cell she may be kindly received. Generally, however, the very best thing to do with a colony that has laying workers or a laying queen is to break it up and distribute the contents of the hive among other colonies. For by the time you find "buckelbrut" in a hive, the workers present are old and not very numerous, and it will be easier to make a new colony from the start than to build it up into a good one. You may make some use of the colony by gradually adding it to a weak colony with a good laying queen.

Saving a Late Swarm—Best Feeder and Clover.

1. What would be the best thing to do with a swarm of Italian bees that I had issue to-day (Aug. 30)? It is a small swarm, with a fine Italian queen, and I am anxious to save them. I thought of taking one frame of honey, brood, etc., from each of eight other colonies, and give to them, and replace the frames of comb, brood, etc., that I take from each of the other hives, with frames with full sheets of foundation; but I am afraid if I do this that I will get my bees to robbing.

2. What do you consider as being the best feeder?

3. Which of the clovers do you consider the best for bees? When would be the best time to sow it in this latitude? MISSISSIPPI.

ANSWERS.—1. Probably the very best thing would have been to put them right back where they came from, but as you are probably anxious to save the queen, you ought to be able to proceed on the line you have indicated without starting robbing. If you operate just about the time bees stop flying in the evening you may feel quite secure, and if you cannot finish the job in one evening you can take several. Or you may proceed on another line. Instead of drawing on eight different colonies, take all the combs from one of your strongest colonies to give to the swarm, replacing the combs with foundation, then feed.

2. If it is pardonable to speak of one of my own inventions, I have never seen anything I like quite so well as the Miller feeder.

3. That's a matter that varies so according to location that I would rather have the opinion of an experienced resident of Mississippi. In Illinois I should say white clover was the most valuable of all the clovers. Possibly in your State sweet clover might be worth more for honey. It can be sown either spring or fall.

Keeping Empty Combs, and Combs Filled with Pollen.

1. I have five colonies run to extracting. They have filled their supers, and I have extracted them and put them back. The harvest is past. How long must I leave the frames with the bees to keep the moth away? and what would you do with them in winter? The bees are wintered in the cellar; the brood-frames are packt with brood, and not 10 pounds of honey in the brood-chamber. I want to feed sugar syrup for winter. How soon could I take the supers away, and where would you put them? Would it do to put them upstairs? I have never seen bees breeding as much at this time of the year. There is very little honey coming in. There is no buckwheat near me, so not much prospect for a fall flow.

2. Will combs filled with pollen keep all right through the winter, away from the bees? Would the bees use it in early spring? NEW YORK.

ANSWERS.—1. The longer frames are left with the bees the safer the combs are, so long as warm weather lasts, but there is not likely to be any trouble if they are taken away when it begins to get cool, say toward the last of September. To make more sure, you might hang them pretty well apart. They may be kept upstairs, or in any dry place through the winter, better where they will freeze, for hard freezing will kill any young wax-worms that may be present. About as good a place as any is to keep them right out-doors, making sure that mice cannot get at them. Make sure that no honey is left in them. To this end it may be well to take them from the bees earlier than you otherwise would do, even taking them off as soon as this reaches you, and setting them out where the bees can get at them. If left on the hives the bees will not empty them entirely of honey, sometimes, whereas they will be promptly cleaned out if placed where they are public plunder. If the least honey is left in the combs, it will granulate, and that will have a bad effect on the honey stored in them next year.

2. If not kept in a damp, moldy place, the pollen will be all right for the bees to use next spring.

Queenless Colony—Transferring and Moving Bees.

1. I had a swarm issue July 4, and I could not hive them. A neighbor of mine (a subscriber of the Bee Journal, and an experienced bee-man) said they had no queen, so we hived them back in the same hive they came from, and began to divide them by taking a brood-frame from the old hive and putting it in the empty one, and kept on in that way until now I have a pretty strong colony, but no queen. Three weeks ago to-day, on Aug. 8, we took a frame from the old hive with a queen-cell, and to-day I examined them, and the queen-cell was gone, but I failed to find a queen or any signs of one. Must I send for one? or how will I manage them now?

2. A carpenter neighbor of mine wishes me to ask a question for him. As he was building an elevator on the Illinois Central railroad, a swarm of bees came over, and the noise of the hammers stopt them. He made a box-hive with two sticks crosswise of the hive, and hived them. How will he get them into a proper hive? And as they are 20 miles from home, when would be the best time to move them? They are working nicely now. SOUTH DAKOTA.

ANSWERS.—1. It is possible that a queen is present and slow about laying, but somewhat doubtful. Your quickest way will be to send for a queen, but you may succeed by giving them a comb containing eggs and young larvæ from which to rear a queen. The objection is that it is so late in the season, and that a queen will not be laying until three weeks or more after you furnish the brood. You are not so sure of rearing a queen late, and one reared too late is not likely to be good.

2. They can be moved at any time, only better avoid a very hot day, and it may be as well to leave them in the same box they are in until fruit-bloom, when they can be transferred according to the directions given in any of the text-books.

BIOGRAPHICAL

REV. H. A. WINTER, D. D.

The subject of our sketch this week is one of the many excellent bee-keepers in the fine honey-producing State of Wisconsin. We had the pleasure of meeting Dr. Winter when attending the State bee-keepers' convention at Madison, Wis., last February. He looks just like his picture—or the picture shown here is a splendid likeness of the man who has a "cooler" name than heart. "Winter" is always seasonable with him.

In the following paragraphs, Dr. Winter tells something of his bee-experience:

I always liked honey, but bees I feared like rattlesnakes. One summer day I took a walk in beautiful Madison, in company with a beloved school principal of Milwaukee. Perchance Mr. C. Spangenberg met us, whom I introduced to my guest as a bee-patriarch. My friend from Milwaukee related with inspiration the following story:

In the barren swamps of Silesia, Germany, there is a very poor Catholic parish, where priests till then were poorly situated, and the complaints to the bishops were stereotyped. But one day when the bishop made his visit he heard no complaints, but found a sumptuous table spread with smoking roasts and other delicacies, also sparkling wine. In his amazement the bishop said: "What has happened here, where all predecessors lived like paupers?"

"After dinner, you eminence, I shall show you my manufactories," was the reply.

"What, manufactories in these sand marshes?" he responded.

Then the priest conducted the bishop to the large apiary in the rear of the once so poor parsonage. The mystery was solved. Honey and wax supplemented the small income of the parish to his heart's content.

That set me to thinking. I learned that many ministers of the gospel, teachers, doctors, noblemen, even crowned princes of old and the present time were, and are, engaged in the keeping of the honey-bee. At once I took a lively interest. It was my good fortune to have Mr. Spangenberg as a willing teacher and friend. He is the most exact and accurate bee-keeper, I think, in the whole country. His hives are very complete for out-door wintering. He never lost a colony in wintering. All his tools are perfect. He has strong colonies, always.

So I embarkt in bee-keeping, 14 years ago, on a small scale. Yes, I had the fever. I became an enthusiast. I love bees. Careworn, I go to my bees, and there I am at home. I lost all by foul brood, but without bees it would be hard for me to live.

I produce only extracted honey, which the people (even in Chicago) prefer to buy from me, because even non-believers take it for granted that a reverend will not adulterate. What a satisfaction for my calling!

I tell my brothers in the ministry: Keep bees; they will make you philosopher; they will teach you pastoral theology. If you treat your bees rightly, you will be successful in dealing with all sorts of mankind. They will bring you in close communication with nature's God; they will make poets out of you. They require clean hands, cool tempers, clean consciences, and peace with God's work. They will make women and children, old and young, your friends.

H. A. WINTER.

August 15, a colony in Wisconsin calling themselves "Lippers," celebrated their semi-centennial. Rev. Mr. Winter is one of the original members.

A Madison newspaper contained the following in regard to Dr. Winter's connection with that organization:

The Rev. H. A. Winter did not attend the semi-centennial celebration of the Lipper settlement near Franklin, Sheboygan county, to-day. The venerable Madison minister is well along in years, and he feared that the excitement of the celebration would seriously impair his health. He sent a short pamphlet to Franklin, in which he set forth a history of Lipper colonization in the United States.

Dr. Winter was not only the father of the Mission house near Franklin, but he was one of the prime movers in early Lipper colonization, and it was through his influence that emigration from Lippe-Detmold, in northern Germany, to the United States, was begun.

In March, 1846, young Winter and about a dozen others left Lippe-Detmold for the United States. They landed in New Orleans. They intended to go to Texas, but changed their minds when they saw two vessels loaded with soldiers *en route* for Mexico. The party went up the river to St. Louis, where they landed about May 1, 1846. Here they separated, some going to Iowa and others to Illinois. Mr. Winter was one of three who remained in St. Louis. He corresponded with his only brother in Germany, and told him of the advantages offered colonists in the United States. The information conveyed in these letters was widely disseminated, and the result was that in the spring of 1847 about 300 colonists reached St. Louis. Some of these stayed in St. Louis, and others went to Iowa and to Illinois.

About the same time a vessel with about 25 families on board left Bremen and took the north course coming along the lakes to Sheboygan, then a small frontier village. A settlement was made at Franklin, July 25, 1847.

Dr. Winter was at all times much interested in religious and educational work in the West. For two years he traveled in Missouri, Indiana and Illinois, selling Bibles and other religious books. He then went to Mercersburg, Pa., where he studied for the ministry in the German Reformed seminary. He often spoke with his fellow students of the mission field in the West. The outcome was, that the Rev. H. A. Muehlmeir was sent to Sheboygan Falls in June, 1853, where he establisht a church. In December of the same year the Rev. Mr. Winter establisht a church in Milwaukee. In 1855 he took up several mission fields in Sheboygan county, and establisht a church near Franklin. About the same time he and the Rev. J. Bossard began to teach students for the ministry. Dr. Winter continued to urge the establishment of a mission house, and through his efforts a beginning was made in 1862, a building being erected near Franklin.

Since coming to this country, the Rev. Mr. Winter has been instrumental is establishing 30 churches. For the last 22 years he has been the pastor of the German Presbyterian church in this city. This church was built in 1846, and was dedicated Jan. 21, 1847. It is the oldest church in Madison. Mr. Winter raised a family of ten children, nine of whom are living.

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GEORGE W. YORK, - Editor.

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Editorial Comments.

We Wish to Thank those of our readers who have sent us new subscribers for the Bee Journal. We do appreciate such efforts on their part, and in behalf of this journal. We cannot afford to send out salaried subscription solicitors, and so must, to a large extent, depend upon our regular subscribers to get their bee-keeping friends and neighbors to take the American Bee Journal. But as pay for such work we offer numerous premiums, and trust that those who have not already tried to secure new subscribers will do so at once. The 25-cent offer on page 586, ought to bring in thousands of new readers during the next two months. We send back numbers from Sept. 1.

◆

The Northwestern Convention.—Several times the past year the suggestion has been made that the old Northwestern Bee-Keepers' Convention be revived; and we have been urged to issue the call for the meeting. Among those who have written us in favor of holding the convention here in Chicago this fall, we have selected the following sample letters:

MR. YORK:—By all means let us have a meeting of the Northwestern this fall. L. HIGHBARGER.

Mr. Highbarger lives in Ogle Co., Ill., and is President of the Northern Illinois Bee-Keepers' Association—of course, a prominent apiarist.

Mr. W. H. H. Stewart, of Whiteside Co., Ill., wrote us as follows:

MR. YORK:—Chicago is the place for a bee-keepers' convention every year. Almost all bee-keepers would like to go to Chicago about once a year. It is reacht by the railroads from Illinois, Michigan, Iowa, Indiana, Ohio and Wisconsin—they all center there. Revive the Northwestern. The United States Bee-Keepers' Union gets too far off for most small bee-keepers. It does well enough for editors and supply dealers, and those who keep bees on a large scale, but the small fellows (like myself) cannot touch it.

Yours truly, W. H. H. STEWART.

Then in the July Bee-Keepers' Review, Editor Hutchinson wrote thus on the subject of reviving the Northwestern:

I have never attended any better conventions than some of the meetings of the Northwestern in Chicago. I once heard our lamented Langstroth characterize one of the meetings of the Northwestern as the greatest gathering of large, practical bee-keepers that he had ever attended. Chicago is the railroad center of one of the greatest honey-producing areas in the world. Not only this, but in October and November there are almost always very low rates on account of some exposition or fat stock show, or something of this sort. All these things combine to bring together a crowd of practical bee-keepers. Several years ago, in a thoughtless moment, the Northwestern was merged into the Illinois State. I was out of the hall at the time that the amalgamation was effected, and don't know the line of argument or thought that was used in support of this plan, but the result was that the Northwestern was killed without doing the Illinois State a particle of good. It is one of those examples showing "what's in a name." But very few bee-keepers outside of Michigan will attend a meeting of the Michigan State convention, even tho it be held in Detroit. It's the same way in Illinois, even tho the convention be held in Chicago. It's the name that does it. There is a feeling that if it is a meeting of the Illinois bee-keepers very few outside of Illinois will be there. People outside of the State don't feel as tho it was their convention. Call it the "Northwestern," and everybody within reach is ready to go. All this may seem silly, but it is a fact just the same.

A writer in the last issue of the American Bee Journal, urges that the Northwestern be revived, using practically the same arguments that I have done, and is most heartily seconded by the editor. The editor also requests all who are interested to drop him a postal, and if sufficient interest is manifested he will issue a call for a convention to be held in November during the Fat Stock Show, when we can get to Chicago for almost nothing. This comes at the time of the year when we can get away from home, and the weather is the most delightful in the year. If you are in favor of a revival of the Northwestern—an association of bee-keepers that can be about as useful as any on this continent—then write to George W. York, and tell him to go ahead and issue a call.

Well, you have now seen that there is a pretty strong desire on the part of some bee-keepers, at least, to have the Northwestern revived. In view of the urgent suggestions we have received, we have made arrangements for the convention to be held Nov. 10 and 11, next, in the New Briggs House, northeast corner of Randolph street and Fifth avenue, and now issue the call as requested.

The Fat Stock Show will be held Nov. 2 to 13, inclusive, so the bee-keepers' convention will come the second week of the show.

No doubt reduced railroad rates will be quite general, as the Chicago Horse Show will be held at the same time, for which prizes aggregating $43,800 are offered—the largest sum ever at the disposal of a horse-show prize committee. It will be under the auspices of the Illinois State Board of Agriculture.

Now, we trust that all the bee-keepers within several hundred miles of Chicago will plan to be here Nov. 10 and 11. We would like to see the Northwestern out-number the recent Buffalo convention.

◆

Buffalo Convention Notes.—First, this week, we want to speak of Mr. Fred L. Craycraft, who had kept bees about four years in Cuba. Since the war there, bee-keeping has practically been dropt. Mr. Craycraft had 400 colonies, and realized an average of about 100 pounds of extracted honey per colony. We believe the principal honey-plant there is the bell-flower. Mr. C. was introduced to the convention, and answered questions as they were askt by various members. His honey was shipt to Belgium, if we mistake not, in packages holding about 1,500 pounds each.

Mr. O. O. Poppleton was present from Florida. He is an old-time Iowa bee-keeper, and used to write much for the bee-papers when living there. He has been in his adopted State for about 10 years, and as his health is much better there than in the North, he will likely remain South the rest of his days. Mr. Poppleton is also a G. A. R. man, and was greatly pleased to be able to attend both meetings at the same time. We had a pleasant visit with Mr. Poppleton after the convention.

Hon. E. Whitcomb, of Nebraska, and his good wife, were on hand. They represented their section of country all right. And Mr. Whitcomb was recommended by the convention for the position of superintendent of the apiarian department of the Trans-Mississippi Exposition, to be held at Omaha next year. It is to be hoped that the Exposition management will appoint Mr. Whitcomb, for he is well fitted to fill such a position with great credit to himself and to the honor of the United States Bee-Keepers' Union, of which he is such a devoted member.

Mr. D. N. Ritchey, of Ohio, was one of the best convention men present. And he certainly did his full duty when it came to the singing. We are perfectly safe in saying that at no former convention was there as much music as at the Buffalo meeting. Dr. Miller presided at the piano, and before the convention adjourned nearly every bee-keepers' song in the program was well learned. By another year, we shall expect the convention to surprise the natives (of the city where it is held) with the sweet musical strains from the honied throats of the apiarian songsters.

Mr. Danzenbaker, with his new hive and perfectly filled, tall sections of honey, was on hand. His was the principal exhibit, and during most of the time not in actual session, the members of the convention kept him busy showing his hive and answering questions. And Mr. D. seemed just as fresh and happy at the close as at the beginning.

Then there was Dr. Besse, of Ohio. He is a fine old gentleman. He had a notary public in an adjoining room, to take depositions from such members as had had experience with sweet clover. We shall be glad to announce the result of his sweet clover lawsuit, now pending in the court of his county. We believe it comes up for trial very soon.

Secretary Mason was about the busiest man in the hall. Why, he didn't have time to eat regularly. And if there's any one thing that will make an otherwise too-good-natured man sort o' crisscross, it is an uncertainty as to getting his meals, especially when that uncertainty eventuates into a total absence of the inside props to the stomach. But Dr. Mason stood it well, and we don't know any one that didn't enjoy his many witty remarks and general intention to do his full duty toward having a good convention. Mrs. Mason was there, too.

A report was circulated that Mr. A. I. Root's absence the first day was caused by his getting lost somewhere out among the cabbages and other truck in the vegetable gardens surrounding Buffalo. We can't vouch for the truth of the report, but some thought he presented the appearance of having had narrow escapes somewhere. And, no wonder, with such swarms of people in Buffalo. Why, it just seemed that everybody and all his neighbors had decided to go to Buffalo at the same time, and there they were. Of course, you put such a timid, unsophisticated home-body as "A. I." down in such a jam as that, and the most natural thing for him to do would be to take to the cabbage and onion fields, or to the woods, and just get himself tee-tum-totally lost! But somehow he finds himself again all right, and not only survives to tell his story of hair-breadth escapes, but points out several good moral lessons, to boot. Don't you every worry about A. I. Root. What he hasn't been through isn't worth mentioning. Why, he even went in bathing with thousands of those Eastern folks in old Atlantic recently, and came out alive and all right again. But the sight of such a large and miscellaneous bathtub full was a pretty big strain on him. Perhaps hereafter he'll keep pretty well inland.

Were any Canadians there? Well, now, there were several. Didn't Mr. Holmes read just one of the best papers on bee-keeping in Canada? And didn't Mr. Couse, the businesslike Secretary of the Ontario Bee-Keepers' Association, extend, in its name, a hearty invitation to all United States bee-keepers to attend their annual convention, to be held in Hamilton next December? Was not Mr. Heise's smiling countenance constantly in front of the presiding officer? And didn't Editor Holtermann have something to say, as usual? Then, Mr. Gemmill—the popular Canadian that was almost kidnapt by those big California bee-keepers—wasn't Gemmill right there? Of course he was. So was Mrs. E. H. Stewart—the only lady representative from Canada, we believe. But we'll have more to say of her next week. Yes, there were other Canadians present—Mr. McKnight among them—but they didn't even try to make the convention over into a Canucky affair. For the time being all were annext to the United States, and seemed very well satisfied.

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The Nebraska State Convention.—The annual meeting of the Nebraska State Bee-Keepers' Association will be held at the Bee and Honey Hall, on the State Fair Grounds at Omaha, Sept. 21 and 22, 1897. Besides Pres. E. Whitcomb's address, and Secretary L. D. Stilson's report, the following papers are expected to be read:

The United States Bee-Keepers' Union—Lincoln, 1896, H. E. Heath; Buffalo, 1897, E. Whitcomb.
Forty Years a Bee-Keeper in Nebraska—J. H. Masters.
Bee-Keepers and Fruit-Growers—G. M. Whitford.
Some Things I Don't Know About Bee-Keeping—S. Spellman.
Some Things I Know About Bee-Keeping—Chas. White.
Some Things I Would Like to Know About Bee-Keeping—J. M. Carr.
Some Things Every One Ought to Know—Wm. Stolley.
The Alfalfa Honey-Fields—F. G. Wilkie.
Sweet Clover Fields—Mrs. L. E. R. Lambrigger.
The Trans-Mississippi Exposition.
Honey Outlook in the State, by—Aug. E. Davidson, S. Hartman, Anna Crabtree, Jenny Bros., L. L. Allspaugh, J. M. Young, Wm. James, S. Barret, Wm. Beswick, and E. Huling.

◆

Honey-Drop Cakes.—We are always pleased to publish recipes which call for honey as an ingredient. Here is one taken from Gleanings for April 1, which is said to have been "tried and found excellent:"

One cup honey; ½ cup sugar; ½ cup butter or lard; ½ cup sour milk; 1 egg; ½ teaspoonful soda; 4 cups sifted flour.

The Weekly Budget.

Mr. D. E. Merrill, editor of the American Bee-Keeper, we regret to learn, has been quite sick with typhoid fever. We expected to see him at the Buffalo convention, but did not. We trust he is rapidly recovering.

Mr. David Bertsch, of Ottawa Co., Mich., called Sept. 11. He has 160 colonies of bees, tho his principal business is that of running tanneries. He has experimented largely with sweet clover, and finds that it will grow anywhere where Alsike clover will succeed.

Mr. W. T. Richardson, of Ventura Co., President of the California Bee-Keepers' Exchange, has produced 40 tons of honey this year; and Mr. Graham, of Ventura and Los Angeles counties, over 50 tons. The quality of the honey is said to be exceptionally fine. Nearly four carloads of honey for only two bee-keepers seems like a good deal. But in California they are used to big things.

Mr. Wm. S. Barclay, of Beaver Co., Pa., is one of the old contributors to the columns of the American Bee Journal. He has been suffering from paralysis the past year or so, but in a letter dated Sept. 6 he says he is better. We are glad to hear this, and hope he may soon fully recover, and be able to send on contributions again.

Rev. E. T. Abbott, editor of the Busy Bee, called on us Monday, Sept. 6, when on his way home from the Buffalo convention and visiting in New York State. He was feeling well, and went home determined to push things harder than ever in the line of bees and bee-keeping among the farmers of our country. Mr. Abbott was a great help at the convention. He is always ready to do his share of the talking.

Mr. P. A. Lindskoog, of Sac Co., Iowa, gave us a short call Tuesday, Sept. 7. He is not only a bee-keeper, but one of the large farmers of his State. He came to Chicago with two carloads of stock, and found a fair market. We are glad to know that finally the deserving farmers are getting at least reasonable prices for what they want to sell. When the farmer is doing well, then everybody else will soon feel better.

Mr. T. E. Orr, of Pittsburg, Pa., publisher of that valuable magazine—The Home Monthly—dropt in to see us last week when on his way home from a trip through a portion of the Northwest. Mr. Orr is a man whom it is a pleasure to know. And his magazine is one of the very best and cleanest publisht today. We expect soon to make our readers a very tempting offer, by which they will easily be able to enjoy the regular visits of The Home Monthly.

Mr. B. Walker, of Osceola Co., Mich., reported Sept. 3 that willow-herb honey is very scarce this season. He says he knows of only one lot of 2,000 pounds or less in northern Michigan. We had gotten the idea somehow that willow-herb was a sure yielder every year. Mr. Walker has taken some large crops from that source in years gone by.

Later—Sept. 8 Mr. Walker wrote: "Bees are booming on fall flowers, and are gathering faster than any previous flow this season."

Dr. C. C. Miller, writing us Sept. 4, said that he had "been under the weather for two, three, yes, four or five days; able to be around most of the time, but having neither strength nor ambition for what I feel ought to be done." We fear the Buffalo convention and trip was a little too much for the Doctor. When a "boy" gets to be 66 years old he can't stand quite as much as when 50 years younger. But a convention without Dr. Miller is—well, it's not nearly so good as when he is present.

Dr. E. Gallup, of Orange Co., Calif., was 77 years old, Aug. 22—last month. For a man of his age to keep about 100 colonies of bees, it must keep him "Gallup-ing" around pretty lively. But it just seems to agree with him, and he really enjoys the work. He reports that a neighbor—John Fox—has 14 tons of honey this season, and his bees in good condition for next seasan.

We expect to publish some very interesting bee-articles from Dr. Gallup shortly. Look out for them.

Mr. C. F. Martenson, manager of the G. B. Lewis Co., of Watertown, Wis., called on us Sept. 8. Mr. Martenson has been with that well-known firm for about 10 years, having workt up through every department, until now he is one of its main-stays. He is also a practical bee-keeper, having taken about 60 pounds per colony this year. We were much pleased to make Mr. Martenson's acquaintance, especially as he represents one of our very best advertising patrons. The name—G. B. Lewis Co.—is the synonym for good workmanship, good goods, and square dealing.

Mr. John McArthur, of Ontario, at a meeting of the British association of scientists, held in Toronto last month, gave "a practical demonstration upon bees, showing two colonies (the 16th generation) which exhibited remarkable and distinctive characteristics. By selective breeding up to the 29th generation, Mr. McArthur had establisht a remarkable yellow race of bees, with extremely mild temperaments, and his exhibition aroused considerable interest."

In a letter received Sept. 6, Mr. McArthur had this to say about sweet clover as a honey-plant:

"Sweet clover is the bee-keeper's best friend, but how slow they are to believe it. It is as hard to knock it into their heads as it is to make the consuming public believe that honey is the cheapest and best sweet and food placed on their tables."

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Convention Hand-Book, for Bee-Keepers, Thomas G. Newman.—It contains the parliamentary law and rules of order for Bee-Conventions—also Constitution and By-Laws, with subjects for discussion, etc. Cloth, gold-lettered. Price, 25 cts.

Thirty Years Among the Bees, by Henry Alley.—Gives the results of over a quarter-century's experience in rearing queen-bees. Very latest work of the kind. Nearly 100 pages. Price, 50c.

Practical Hints to Bee-Kee-Keepers—by CHAS. F. MUTH. Also contains a Foul Brood Cure and How to Winter Bees. 40 p.; 10 cts.

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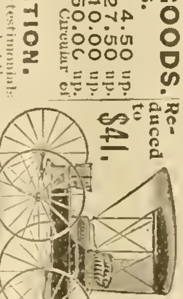

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E. France—1 and 2. I don't know.

J. A. Stone—1 and 2. I don't know.

H. D. Cutting—1 and 2. I don't know.

J. M. Hambaugh—1 and 2. I don't know.

Prof. A. J. Cook—1. I think not. 2. I do not think so.

R. L. Taylor—1 and 2. I should not be afraid to use them.

W. G. Larrabee—1 and 2. I have never used zinc separators.

Eugene Secor—1 and 2. I have never tried them. I use tin or wood.

Dr. A. B. Mason—1 and 2. I should say no to both. Bees don't eat such drugs.

P. H. Elwood—1 and 2. I have observed no harm, and we have used them for years.

Mrs. L. Harrison—1. I have never used zinc separators. 2. I have no knowledge on this point.

A. F. Brown—1 and 2. I should not use the zinc separator. Use wood instead. Wood is far preferable.

G. M. Doolittle—1 and 2. I have never experienced any trouble with zinc queen-excluders. I use tin for separators.

G. W. Demaree—1. I have never had my bees injured by using the zinc excluders. 2. I don't see how it could injure the bees.

Chas. Dadant & Son—1 and 2. We do not believe zinc separators to be poisonous, but we dislike separators of any kind, and think they are more trouble than advantage.

Dr. J. P. H. Brown—1 and 2. I have no practical knowledge; but I am inclined to think, from what I know of the properties of oxide of zinc, that it would do no harm.

Rev. M. Mahin—I have never used zinc separators, but I should have no fear of harm from their use. I would clean the oxide off of them. 2. It would not poison the bees.

Dr. C. C. Miller—1. Perhaps the main objection would be the same as to any metal, too good a conductor of heat. 2. Probably it isn't a wholesome diet for them, but they're not likely to get any of it from separators.

C. H. Dibbern—1. I do not think there is any harm in using them, but I consider tin cheaper, and wood preferable. 2. I do not think the oxide from zinc at all injurious to bees, as they do not eat it, but simply brush it off.

J. E. Pond—1 and 2. None at all, in my opinion. I have used them and have never found any trouble or difficulty in their use. How, or in what way, can they so be used as to injure the honey in the sections they are designed to keep separate?

Emerson T. Abbott—1. I do not know what you mean by "harm." I should not use zinc separators, harm or no harm. 2. Not if they do not eat it, and I am not so sure it would be then. I

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DR. GEO. LACKE, Newburgh, Ind.

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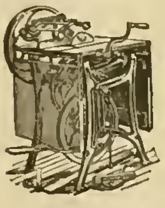

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330 Market St., - SAN FRANCISCO, CAL.

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have two pet squirrels which have eaten more than two square feet of zinc in the last two years, and it has not poisoned them.

J. A. Green—1. I have used zinc separators somewhat, and have never found any objections, except their lack of stiffness. What I used was very thin—much thinner than ordinary sheet zinc. 2. I have never had much of the oxide form on them, but I do not think it would do any harm.

General Items.

Good Season for Bees.

My bees stored lots of honey this year. It sold for 10 and 12½ cents per section, or pound. How is that for North Carolina? J. D. A. FISHER.

Rowan Co., N. C., Sept. 2.

◆

Nice Honey-Flow—Sweet Clover.

As Mr. Bevins says, once a bee-keeper, always a bee-keeper; and I say, once have the American Bee Journal, always have the American Bee Journal.

I have now 60 colonies, and a nice farm of 80 acres to keep them on. The honey-flow was very nice from white clover, about 40 pounds to the colony, and here we always have a big fall flow. I have tried this summer to sow sweet clover in a cornfield of seven acres just before it was cultivated the last time. It all came up nicely. Next year we will see how it will act as a fertilizer when it is plowed under. Some of it I will keep in blossom for the bees and seed. N. N. ALLING.

Middlesex Co., N. J., Aug. 14.

◆

Honey-House—Moving Bees.

While we are discussing the merits and demerits of the "best" breed of bees, and trying to determine whether such a "strain" (on our guesser) should have three or five hairs on the left hind leg, there are some other "pints" that I, for one (perhaps among many), would like to learn from the sages.

For instance, I would like to see in the Bee Journal a description, with plans, diagrams and elevations, of the "best" honey-house to be built at a small or moderate cost. It should be figured on the needs of 100 colonies as a basis. The plans should show size, arrangement of doors and windows, how best protected by screens, ventilation, heat or coolness of temperature, and how acquired. Then the equipment should be described; the size, shape, and arrangement of work-bench, tools, racks, storage-tanks for extracted honey, for comb honey; whether they should be zinc-lined and air-tight, or ventilated, and all other details, needless, and too numerous, here to mention. I believe in "a place for everything and everything in its place." Is there not among our bee-masters an architectural and experienced mind that can show us how to provide such a place, to our satisfaction as well as that of our bees?

I would also like to know a thing or two about moving bees. What season is best? Can it be well done in fall or winter (open winter here in California)? What precautions are necessary both as

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For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 25 cents per pound, CASH; or 28 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly,** for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,

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J. M. Jenkins, Wetumpka, Ala.

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30 miles northwest of Chicago, in 9-frame Langstroth hives. Bees in good condition. Only a few colonies. Prices—$5.00 per colony; 5 colonies, at $4.75 each; or 10 colonies at $4.50 each.

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Beeswax Wanted.

M. H. HUNT, Bell Branch, Mich.

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That will keep Hen's Eggs perfectly through warm weather, just as good as fresh ones for cooking and frosting. One man paid 10 cents a dozen for the eggs he preserved, and then later sold them for 25 cents a dozen. You can preserve them for about **1 cent per dozen.** Now is the time to do it, while eggs are cheap.

Address for Circular giving further information—

Dr. A. B. MASON,
3512 Monroe Street, - TOLEDO, OHIO.

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Y Z

BRO. YORK'S
OWN TESTIMONY

AFTER 18 MONTHS' USE.

Chicago, July 27th, 1897.
Dear Dr. House:
My office force have fallen in love with your Yellowzones. I enclose $1.00 for as many as you mail for that amount.
Y Z
Success to you in your excellent work.
Very truly yours,
GEO. W. YORK.
P. S. Say, *I* think as much of your "Zones" as the "girls" do. They just straightened out a very severe headache I had awhile ago. Worth their weight in the yellow metal now being raved about up in Alaska. G. W. Y.

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An honest and efficient remedy for all fevers, headaches, colds, grip, rheumatism, neuralgia, etc. And every box guaranteed—but no customer has ever yet asked for his money back. One box, with supply of *Zonet Cathartics*, 25c; six boxes for $1.00. Most orders are for Dollar lots.
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Y Drawer 1, Detour, Mich. Z
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to removal and prevention of return of bees to the old stamping grounds? Can the work be best done at night? Ought the hives to be kept closed for any period of time, or may the bees be allowed to fly at once?

I desire to move my bees perhaps one-eighth to one-quarter mile over to the other side of a canyon. As the distance is short, there may be some difficulties I have not apprehended. If so, I shall be glad to know them. GEO. H. STIPP.
Santa Clara Co., Calif.

[As Mr. Stipp's questions can be more satisfactorily answered by a Californian, will any of our subscribers out there, who have had experience along the lines indicated, kindly send us their replies for publication? If they have photographs of the honey-house, and will kindly send them, we will endeavor to have them accompany the descriptions. Especially the interior arrangement should be shown.—EDITOR.]

◆

Report for the Season.

This has been a fine honey year. I have sold over 1,000 pounds of honey from my bees. I started with 7 colonies, and increase to 14. I got two Italian queens from Texas, in June, and now I have two fine Italian colonies. I tried J. E. Pond's way of Italianizing, and it workt like a charm.

Out of the old honey I got last spring when I transferred my bees, I made some vinegar, and now I sell it for 40 cents a gallon. The people around here never heard of honey vinegar before.

The honey season is over now, except what the bees gather from the fruit. We have never had such a fruit year—the trees are all breaking down with fruit.

I see in the Bee Journal something about it raining so much that the bees can't work, in so many places. They can work here; we have had only one shower since March 28. How is that for California? I wish you would send some of your rain this way. This summer has been fearfully hot here.
W. A. PELLEW.
Nevada Co., Calif., Aug. 31.

◆

Anent the Sale of Honey.

I have read with great interest the various opinions advanced in the American Bee Journal regarding the proper procedure in establishing a home market, and I feel that, in return, I owe to my benefactors a brief recital of my first and recent experience.

I live amid at least a dozen groceries, each ready to sell honey. This to show the competition in trade. A month ago I took off about 100 pounds of comb honey. I gave some away—a doubtful procedure—and encouraged my neighbor's boy to sell the rest—for a consideration, of course.

Charlie is a boy with an eye to business, and in two days of selling, from door to door, disposed of my little stock. Yesterday I took off another 50 pounds (I have four colonies), and the same Charlie has sold nearly half, and will finish selling every section this week. If I had four times as much, it would soon be gone.

Now to the contrast I wish to call attention. All my informers say—and very justly, in a general sense—"have every section perfectly clean and presentable." Is this advice not subject to exceptions? Here is my point: Being a novice in the honey line, I used old sections in the supers—a thing I will not do again. The result was that my sections, when filled, did not look well, especially as I did not scrape off the propolis. Sold them just as they came out of the super.

I have a good neighbor who is much better posted than I in bee and honey lore. His sections are the perfection of neatness, and the honey in them is about the finest I ever saw. Yet note the results—so queer is human caprice: The same boy sold some of his sections, but they are so clean that it seems to invite the suspicion that the honey is "manufactured," and, the boy says, is less salable than mine. These are the facts; draw your deductions.
Cook Co., Ill. EMM DEE.

◆

Too Dry Since June.

Bees did well here the forepart of the season, but it has been too dry since the latter part of June.
(REV.) H. H. FLICK.
Dauphin Co., Pa., Sept. 7.

◆

A Colorado Report—Ants.

We have had a pretty good honey-flow and increase. After the spring, I had 24 colonies. They increast to 42, very suddenly, and then the swarming quit just as quickly. I afterwards got word of a very large swarm having settled on a tree near a neighbor, about Aug. 10, and I hived it on the ground. They had their hive three-fourths full of honey, and the balance of space in eggs in one week exactly. I never saw a finer looking queen—not yellow, but leather-colored, showing scarcely any black.

I made a mistake last spring, I think, in not getting a stand and roller ready to put in wired foundation. I used the old combs bought in the hives, tying them in with thread, which they often cut before they had the combs fastened.

While I was poorly, I had one swarm become queenless, and get laying workers. As it was weak, I smoked them both, and turned the bees into another after-swarm, with a fine queen, which is doing well. Since then I found one colony—an old one—queenless, and while straightening the frames and putting in a frame of eggs and brood, robbing began, and I failed to stop it, and the bees found another in the same shape, and were robbing through a crack between an unfilled super and the warpt old hive. I took the super off, made the cover tight, and piled grass on the alighting-board, but did not succeed in saving them. These were old colonies, which had not swarmed, I thought. I was surprised to have them become queenless in July and August; and to fail also in rearing new queens.

Most of the honey I have taken as yet is off the large early swarms. I will have about 400 pounds of good honey, and a considerable bit of crooked and light, due to my own poor work. You may say the whole crop is from our three honey-plants—alfalfa, sweet clover, and cleome, although they work a good bit early on the sun-flowers, and all during the fall season on mintzelia nuda—called Colorado evening star—a pretty, silvery, ivory-white flower, which grows on the tops of stiff, whity-green stems and leaves. The bees are very fond of them. They grow on dry, bare spots, and do not open until 4 p.m. fine evenings. I should like to know what the honey is like.

One of my neighbors—Edwin Miller—is well pleased with his honey-crop. He says the flow kept on longer than any previous year in this section.

I don't know what to do with small, black ants. They are walking in through the side of the house and windows, all across a good-sized room and up on a table to my honey-cases.

W. A. VARIAN.

Weld Co., Colo., Aug. 31.

What They Say About the Pouder Honey-Jars.

BAYONNE, N. J., July 31, 1897.

WALTER S. POUDER, Indianapolis, Ind.

Dear Sir—In reference to the way in which you pack your Jars, we would say that we kept a strict count on the last shipment, making a memo. of the number of broken ones in each case when opened. We found upon finishing the 1200 jars that we had 14 one-pound and 2 half-pound broken, or an average of 1⅕ jars to the case. This is a big improvement when we look back to the time when we received them packt in straw from other houses, with all the way from 4 to 10 in a case broken.

Wishing you and your business success, we remain. Yours truly, HOLDING BROS.

Convention Notices.

Tennessee.—The Southern East Tennessee Bee-Keepers' Association will hold its annual session at Cooksons Creek, Friday, Oct. 1, beginning at 9 o'clock, a.m. Bee-keepers are earnestly requested to attend. The program foreshadows entertainment for the most fastidious. W. J. COPELAND, Sec.

Fetzertou, Tenn.

Wisconsin.—The Southwestern Wisconsin Bee-Keepers' Association will hold its annual convention at Boscobel, October 6 and 7, 1897. All the leading apiarian subjects of the day will be thoroughly discust, and a general good time is expected. All are cordially invited to come and bring their friends.

Calamine, Wis. F. L. MURRAY, Sec.

Bee-Keepers' Photograph.—We have now on hand a limited number of excellent photographs of prominent bee-keepers—a number of pictures on one card. The likeness of 49 of them are shown on one of the photographs, and 121 on the other. We will send them, postpaid, for 30 cts. a card, mailing from the 121 kind first: then after they are all gone, we will send the 49 kind. So those who order first will get the most "faces" for their money. Send orders to the Bee Journal office.

HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Sept. 1.—Fancy white 12c.; No. 1, 10 to 11c.; fancy amber, 9c.; No. 1, 7 to 8c.; fancy dark, 7 to 8c.; No 1, 7c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½c. Beeswax, 26 to 27c.

There is a little honey selling now, and with this month sales ought to increase. It is also a good time to ship comb, as wax is strong, and resists jars in transit.

Kansas City, Mo., Aug. 10.—Fancy white, 13c.; No. 1, 11 to 12c.; fancy amber, 10 to 11c.; No. 1, 9 to 10c.; fancy dark, 8 to 9c.; No. 1, 7 to 8c. Extracted, white, 5 to 5½c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 25c.

There is very little demand for honey this hot weather, but will improve with cooler weather.

St. Louis, Mo., Aug. 9.—Fancy white, 12 to 12½c.; No. 1, 11 to 11½c.; fancy amber, 10 to 10½c.; No. 1, 9 to 9½c. fancy dark, 8 to 8½c.; No. 1, 5 to 7c. Extracted, white, 5 to 5¼c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 24 to 24½c.

The weather so far this season has been too warm for the free movement of honey, but with the present prices on sugar we think there should be a good demand for extracted honey at the above prices. One car of 24,000 pounds sold since our last quotation on basis of above prices. Beeswax finds ready sale at 24c. for prime, while choice stock brings a little more.

San Francisco, Calif., Sept. 1. — White comb, 1-lbs., 7 to 9c.; amber comb, 4 to 6c. Extracted, white, 4¼ to 4¾c.; light amber, 3½ to 4c.; dark tule, 2¾c. Beeswax, fair to choice, 23 to 25c.

There is a moderate amount of business doing in extracted on export account at fairly steady figures, quotations remaining unchanged. Comb is meeting with small custom for local use. Arrivals for the season to date foot up about 2,000 cases, as against 1,000 cases for same time in 1896. Shipments aggregate 1,600 cases, as against 200 cases a year ago.

Cleveland, Ohio, Aug. 31.—Fancy white, 13c.; No. 1, 12c.; fancy amber, 8 to 9c.; fancy dark, 6 to 7c. Extracted, white, 6½ to 7c.; amber, 5 to 5½c.

Fancy white is in demand, but very little is coming in.

Philadelphia, Pa., Sept. 3.—Fancy white, 13½ to 14c.; No. 1, 12c. Extracted, white, 6c.; amber, 4 to 5c.; dark, 4c. Beeswax, 24c.

No arrivals of dark or amber honey yet to any extent. Reports from all parts show large yleids of honey in the East.

Buffalo, N. Y., Sept. 1.—Fancy white, 11 to 12c.; No. 1, 9 to 10c.; fancy amber, 8 to 9 c.; No. 1, 7 to 8c.; fancy dark, 6 to 7c.; No. 1 5 6c. Extracted, white, 5 to 6c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 22 to 26c.

Honey is selling just a little better, but we advise moderate shipments till October and November, when liberal amounts can be sold.

Milwaukee, Wis., Sept. 2.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 8 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 4 to 4½c. Beeswax, 25 to 27c.

The receipts of new comb honey begin to arrive, and of very nice quality. The extracted is improving in quality. There is danger of not allowing it to cure before shipping. The demand is only moderate, bu equal to former seasons, as while fruit it plenty honey is not wanted so much. Later there must be improved demand.

New York, N. Y., Sept. 7.—Fancy white, 12 to 13c.; off grades, 10 to 11c.; buckwheat, 9 to 10c. Extracted, California, white, 5 to 5½c.; light amber, 4½ to 5c. Southern, 50 to 55c. a gallon.

New crop of comb honey is arriving more freely, and we have a good demand. California extracted is in fairly good demand, but all other kinds are neglected. Beeswax is quiet and easier.

Albany, N. Y., Sept. 7.—Fancy white, 12 to 13c.; No. 1, 10 to 12c.; No. 1 amber, 9 to 10c.; No. 1 dark, 8 to 9c.

New crop comb honey is arriving quite freely, but as yet there is very little demand. The quality is about the same as last year. Extracted is very quiet.

Minneapolis, Minn., Sept. 1. — Fancy white, 11 to 13c.; No. 1, 10 to 11c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c.; fancy dark, 8 to 9c.; No. 1 dark, 6 to 7c. Extracted, white, 5 to 6c. Beeswax, 23 to 25c.

Only strictly fancy stock wanted in this market. Market is firm but sales are slow.

Detroit, Mich., Aug. 31—Fancy white, 11 to 12c.; No. 1 white, 10-11c. Extracted, white, 5½ to 6½c. Beeswax, 25 to 26c.

No dark honey is yet offered. There is a steady demand for fancy white. Extracted is of good quality.

Indianapolis, Ind., Sept. 1.—Fancy white, 11 to 13c.; No 1, 9 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c. Beeswax, 25c.

In an experience of eight years I have never before seen the demand so good for comb honey as it is just now. Consumers claim that honey is better this year than usual. Extracted honey is selling slowly.

Boston, Mass., Sept 1.—Fancy white, 12 to 13c.; No. 1, 12c.; fancy amber, 10 to 11c. Extracted, white, 6½ to 7c.; amber, 6 to 6½c Beeswax, 27c.

Honey is now being received in small lots and meeting a fair demand at above prices. Demand will naturally increase with cooler weather, and with the short Eastern crop, it should clean up in good shape.

Cincinnati, Ohio, Sept. 7. — Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½ to 4cc. Beeswax, 20 to 25c.

Our prices for best white comb honey ranges between 11 and 12c. Have no demand for dark comb honey. Demand is good for all kinds of honey.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & CO., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN.
120 & 122 W. Broadway.

Kansas City, Mo.
C. C. CLEMOMS & CO., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & CO., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.
A. B. WILLIAMS & CO., 80 & 82 Broadway.

St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.
S. H. HALL & CO.

Milwaukee, Wis.
A. V. BISHOP & CO.

Boston, Mass.
BLAKE, SCOTT & LEE., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. MCCULLOCH & CO., 380 Broadway.

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Untested at 45 cts. each. Write for wholesale prices. I make the rearing of Queens a specialty, and there are no better bees in the country than mine. To be convinced, order one sample Queen. This is a Money Order post-office. I insure safe arrival.

DANIEL WURTH,
34A4t FALMOUTH, Rush Co., IND.

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A Special Booklet Bargain!

For a limited time we wish to make our readers a **special offer** on booklets on Bees, Poultry, Health, etc. Upon receipt of **75 cents** we will mail any **6** of the list below; and for **$1.25** we will mail the **whole dozen**:

1. Foul Brood, by Dr. Howard	25c
2. Poultry for Market and Profit	25c
3. Turkeys for Market and Profit	25c
4. Our Poultry Doctor	30c
5. Capons and Caponizing	30c
6. Hand-Book of Health, by Dr. Foote	25c
7. Kendall's Horse-Book	25c
8. Rural Life	25c
9. Ropp's Commercial Calculator	25c
10. Foul Brood, by Kohnke	10c
11. Silo and Silage, by Prof Cook	25c
12. Bienen-Kultur, by Newman	40c

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Contributed Articles

How Far Do Bees Travel for Honey?

BY C. P. DADANT.

I have often read of bees going great distances for their honey, and harvesting crops from blossoms three miles or more from their apiary. Altho there is probably some truth in the statements thus made, yet, for all practical purposes, I believe that it is useless to depend upon their going over two miles in any one direction. We have had out-apiaries, located 4 to 12 miles away from our home apiary, for 25 years or more, and I know by the experience of the crops in each of these apiaries that the ranges of the bees in them were entirely different.

We once had an apiary located on the shore of the Mississippi river. This apiary remained in that spot for about eight years, and its crop was always shorter than that of any other apiary. It was about four miles north of our home, and altho we knew that the vicinity of the river—which, of course, cut off half of its pasture—had something to do with its scanty crops, yet we disliked to remove it, because it was in a location where orchards abounded and the facilities for a spring harvest were good. We were for a long time under the impression that the home apiary was helping to cut off its honey supply, by its proximity, but we were well cured of this doubt when we found a small apiary of 10 colonies exactly half way which had harvested more surplus than either of our own.

We have often, since, ascertained that localities three miles apart may have altogether different crops, both in quantity and quality.

I read an article lately by one of our leading authorities, in which he advises prospective bee-keepers to select their location in reference to the amount of bloom, wild or cultivated. This is good advice, and yet it is not always safe to depend upon present conditions to determine the future. As an instance of changed conditions, unexpected, I will mention what has happened in the neighborhood of an apiary which we located some 20 years ago between the cities of Hamilton and Warsaw, about half a mile from the Mississippi river.

When we first placed bees on this farm, the land was but little cultivated in the neighborhood, and the bottom or low lands along the river, composed of islands and overflowed strips, were, in their natural condition, producing a profusion of fall bloom. The cultivated lands in the neighborhood were largely in orchards, and the timber contained plenty of basswood—a real Eldorado for bees.

Within a very few years the young, thrifty orchards had become much damaged by hard winters, and the low lands were so closely pastured by neighboring cattle as to cease to produce anything except iron-weeds and boneset, which, as everybody knows, produce about the poorest grade of honey that can be found. Later, the owners of the timber began to cut it down, and we seriously feared that all the basswood would go. The crops of this apiary had so diminisht that we began to study over the necessity of removing the bees elsewhere. But in the past three years a revolution has taken place. The low lands have been put under fence and cultivated. The cattle being kept off, every nook and corner of those islands that are not thoroughly overturned by the farmer's plow, now grow more and thriftier honey-plants than they ever did before, and after every rise of the big river, a little better harvest comes to our bees than the one before. It matters but little what is grown on those lands, the soil is so rich that when the cows are kept off a bountiful harvest is sure to come—from knotweed and Spanish-needle—and the crop of this apiary is at present equal to the best we have.

Another apiary, located *only two miles* east of the above, yields no fall honey worth mentioning. This shows us conclusively that, whatever other people's bees may do, ours will not thrive on a honey-crop source located two miles or more from them.

There is, however, a possibility of bees traveling that distance, or even more, if the country over which they travel is not broken. We have seen our bees at work about two miles from home along the valley on which we live, and we ascribe it to their not having any hills to climb or heavy timber to pass. Very certainly, bees will travel farthest where the country is smoothest.

Hancock Co., Ill.

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A Few Apiarian Observations and Conclusions.

BY "BEE-STUDENT."

HIVE-VENTILATION.—Complying with the editor's request on page 504, I would like to say a word in regard to ventilation. We are often told to raise the hive by putting blocks under the corners, and, seemingly, without considering how the bees are to get up into the hive. When the convenience of the bees is considered, we readily see that something else besides blocks is necessary, and to help them to easily get to any part of the hive, I use a piece ½x1¼x16 inches, bringing one side of this piece to a bevel ½ inch back, and almost to a featheredge, except one inch at either end, which I leave square for the hive-corners to rest on; and by putting this under, about ½ inch back from the front, the bees can go directly to any part of the hive as tho it were not there, and the incline makes it much easier for them to enter. I use 10-frame hives, with full-width entrance, and if further ventilation is needed than described above, I put a square piece ½ or ¾ inch by 16 long under the rear end of the hive.

Hives may always be placed with the entrance to the south, southeast or east, and have the prevailing summer winds at the side, and with proper shade-boards and 10-frame hives, no loafing or idle bees will be found, if there is anything for them to do, and they will be comparatively comfortable if compelled to be idle.

Bees usually leave the hive at the nearest exit, but on returning nine-tenths of them will go to the alighting-board, and as only covered colonies need ventilation, there need be no fear of robbing.

Unless one studies the requirements of bees until he can quickly meet any emergency that may arise, he should consider himself a tyro, and endeavor to learn how to readily meet all requirements, without being obliged to ask some one a thousand things he ought himself to know. Printing the same questions, year after year, would be avoided, and the space given to something more interesting to the general reader, and if a man begins the bee-business without books and papers from which to inform himself and *keep* posted, he will be sure to fail, eventually, and I would have but little patience in answering his questions.

ABSCONDING SWARMS.—Observation should teach us the requirements of the apiary, and correct conclusions, the proper management of it. Long ago, I observed there was something wrong when bees absconded, but not one swarm in 100 will leave a hive if they have a queen, the hive properly shaded, and the inside of the hive polisht with propolis *immediately*, before hiving them. I save up sufficient clean propolis to always have a ball of it on hand, and by vigorously rubbing the inside of the hive for a minute, it gives it a clean, homelike smell, and for many years I have not lost a swarm. When I do my work properly the bees will do theirs.

THAT DRONE QUESTION.—I settled that for myself some time ago, by leaving two combs on the *cool* side of the hive, for a fair supply of drones, when the queen reacht them, and I have no more trouble with drones being reared in worker-combs. I tried for some time to get along without drones, and succeeded nicely, but the bees didn't, for they never gave me as much honey as where a fair supply of drone-comb was furnisht them; and I have ever since noticed that colonies with a liberal amount of drones workt much *earlier* and *later* daily than where there were none, and I came to the conclusion that the excess of honey so gathered would more than offset the amount needed for the drones. I am confident we can "drone" too *little* as well as too *much*.

While the bees are breeding up in the spring, and not much honey coming in, no drones are needed, but if the queen is prolific, and the colony strong as it should be, the stores will be exhausted in at least one of the combs containing drone-cells, and so furnish all the drones needed to relieve the brood-nest of the workers during the honey-flow, which is continuous here from the first of March until the middle of July; swarming usually beginning about March 15.

I am aware it will be well to regulate the amount of drone-comb to be used, but I do not believe a good, average colony, with a prolific queen, will build much more drone-comb than is really needed for the welfare of the colony.

In taking bees out of trees, where there was no cool and warm side, but ample room, I almost always found the drone-comb at the bottom, and where deep frames are used, and hives well shaded, I have noticed the same thing; as the stores are used up in the spring, the cluster enlarges, and the drone-comb is reacht and utilized for drone-rearing at the proper time. I shall hereafter follow more closely that management which has given best results.

SELECTING QUEENS.—Some apiarists report bringing in the best colonies from their out-apiaries for the purpose of infusing new blood into their home yards, but they do not tell us by what kind of hocus-pocus management that choice blood is produced in their out-yards.

The *best* queen is not always the *first* to leave the cell, and here is where the selecting should be done. Immediately after a swarm issues, it is but a minute's work to destroy all inferior cells, leaving but one or two, and I never allow a young queen to leave the hive without seeing her and believing she will prove satisfactory.

There are usually but two or three *first-class* queen-cells to be found in a hive, when natural swarming is permitted, and while we have the opportunity to select the best, why not protect our interests by doing so? And as we increase the size of our bees by judicious selection, we will also increase the length of their tongues in the same ratio, and the "desirable" will have been attained.

A CALIFORNIA APOLOGY.—If it will not be out of place, I would like to offer an apology in behalf of some of the bee-keepers of California, and for some who are not bee-keepers. Those who come to California, if they do not come especially for their health, come under a degree of excitement usually termed "California Fever;" and if this "fever" is not soon abated, it often results in an abnormal development of the leading propensities of the individual. If some things they say do not sound quite reasonable, you may know to what cause it should be attributed. Having lived here seven years, I "know how it is myself," and am sorry to say this same *weakness*, or whatever you may be pleased to call it, has been largely transmitted to the coming generation, and my conclusion is, that it is a great drawback to the moral soundness of the human family, and more difficult to get rid of than a lot of laying-workers or a case of foul brood, for "shaking off" and giving new conditions and surroundings only enlarges the opportunities, and seems to intensify the "disease" rather than diminish it. I hope this will be satisfactory "to all concerned."

Ventura Co., Calif., Aug. 10.

That "Detestable Bee-Space" Defended.

BY PETER SCHARTZ.

On page 482, "Common Sense" has a great deal to say about the "detestable bee-space," that he thinks is a great injury to apiculture, which I do not believe to be true. Quite right is he, that the bee-space is handy, for that is just what we want; nor do I see that it makes any difference to the bees. Why, any man with "common sense" would know better than that! Just think of having the bee-frames glued to the bottom, ends and sides! And just think once more, and have your sections all stuck fast to the top of the frames! The idea is enough to make any bee-keeper shake in his boots. My hives have a space all around the frames, and a ¾-inch space on the bottom. And I don't see that there is any loss in bees or honey. I wonder if "Common Sense" has a bee-space between the combs or not for the bees to wiggle through.

He says that he never owned a box-hive in his life. He might just as well have them as the hive he describes, and makes a mistake when he calls our bee-spaced hives clap-trap inventions.

Again, he says bee-spaces above and around the brood-frames are an injury to apiculture. First, in the wintering of bees; second, in booming the colony in the spring; and, third, the early storage of surplus honey in the sections. Now, he is all wrong there, at least in my experience. My bees are always wintered on the summer stands, with no further packing than a quilt above the frames, and I always put three one-inch strips above the frames, then the quilt, then crowd a super above the quilt. I then take any box that will slip over the super, hive and all. This box is closed on the top. Then the hive-cover I simply lay on the top of this box, when my bees are packt complete for winter. I have never lost a colony yet from this cause. It is the "two-legged bee-space" that sweeps away my bees, hives and all, and not the bee-space in the hives.

Last winter, having noticed sawdust at the entrance of one of my hives, it occurred to me that may be the bees had chewed through the quilt. I removed the cover and outside box, then the super and sawdust, and lastly the quilt, but they were all right. Now, this was in January, and a bitter cold day, still they were in good condition, nice and dry, with no frost or condenst air in the hive, and they came through the winter and were boomers in the spring. All my bees are boomers in the spring, and too much so if not carefully watcht. When they are not satisfied with an 8-frame hive, and transferred to 12-frames and still swarm, I would like to know what else they are if not boomers. And as far as honey is concerned, I have received 150 to 250 sections of honey from these same bee-spaced bees, which I think a good enough yield for any bee-keeper to be satisfied with.

I think it wrong to condemn the advance made in apiculture by our improved hives. We sometimes have brood in the sections as it is, but what might it not be if the sections rested flat on the brood-frames? It's absurd to think of it.

I have merely stated my experience in this matter, and don't want any person to call me a liar, the same as the other fellow called Dr. Miller. And last, but not least, is it right for any person to give himself another name when writing an article for the papers? If a man is not man enough to sign his right name, his article ought not to be publisht. There is Dr. Miller, G. M. Doolittle, and many others of our experts that I believe are not afraid to sign their own name to any article they write, which is right. Then we know who is who, and which is which, and not wonder who they really are.

Cook Co., Ill.

⁂

Getting Bees Into the Supers—Prevention of Swarming.

BY DR. E. GALLUP.

I am askt, "How do you manage to get your bees to commence building comb properly in the supers? Mine do not seem to commence or take possession readily, and then they often commence at the bottoms of the frames and build upwards." Again, "Do you believe, or think, that any person can learn to manage bees on the Dadant plan without swarming? How long after you put on a super before your bees take possession and commence building comb? Please answer through the American Bee Journal."

Now, I am not the question editor. Why not forward your questions to Dr. Miller?

To your first and third questions I would say: They can be made to take possession in about five minutes, and commence building all right inside of a few hours. To the second question: I manage my very strongest colonies without swarming or dividing, whenever I take a notion to do so, and I think any person of ordinary intelligence can learn to so manage them. Like Dr. Miller, I will say, "I don't know," if you are running them for comb honey, for since getting hold of the movable combs and the extractor, I have always depended upon the extractor.

July 16, I had a fair-sized swarm of Italians come out. I hived them on empty frames, with half-inch starters, and as the weather was quite warm, I set them under the shade of a large fig-tree. Recollect, in the hottest of weather here it is always cool in the shade. If I had set them out in the hot sun they might be compelled to leave. In a few days I examined them, as I always do. I moved sealed brood to the outside of the center of the hive, and frames not filled to the center. August 10 again I examined them, and found every comb completely occupied with brood, eggs, etc. Every cell was a worker-cell, not a single drone-cell to be seen in the lot, and the queen watching to place an egg in every cell as fast as it was ready, where the young hatcht out, and I saw a number of cells with two eggs in a cell. I took out two frames of sealed brood, and placed them in a super, and put foundation in their place. I put on the super, placed the two combs of brood and the adhereing bees in the center, with a frame of foundation between, and filled out at the sides with empty frames and starters. I left the old queen below. I place only 7 frames in an 8-frame super, as I like thick combs to extract from.

On the third day after putting on the supers, I lookt in to see what they were doing. I found the foundation built out, and every cell from top to bottom so filled with honey that it felt like a lump of lead, and the four empty outside frames were well filled, or built down.

Now, you can understand how I make them commence in a super in about five minutes. But you want a good queen, abundance of bees, and the nectar for them to gather. This queen was one of my own rearing. You will find that on the queen hangs all your sucess in bee-keeping, along with right management. If a queen does not suit me, I do not put on a super until I get one in that does suit. I have had a sight of weeding out this season, and now I have a brag apiary. If you do not believe me, just come and see for yourself.

Now about how I manage without swarming: Early last season I selected three of my best colonies, placed them in 10-frame Langstroth hives, and when they were ready I put on supers and run them three stories high. When I put on the third super, I divided the combs among them, and alternated empty frames between each full comb. Understand, I had no combs built, and no foundation on hand, so the bees had all their combs to build.

As fast as the bees become numerous, I take a two-inch chisel and use it for a lever to raise the front end of the hive, and place an entrance-block edgewise under the front of the hive. In this manner I can raise the front of the hive two inches if necessary, and allow the rear end of the hive to rest on the bottom-boards. At all events, give abundance of ventilation at the bottom of the hive. If the queen is as good as she ought to be, she will occupy from 14 to 16 frames. For that reason I like worker-combs in the center of the first super, and I often have colonies that I run four stories high.

Now, you can see that Mr. Dadant is right in advocating large hives and a loose bottom-board. For my own use, I would sooner have a 12-frame Langstroth hive than an 8-frame; but I am working for increase. We don't have to carry our bees down cellar in this glorious climate, so there is no objection to a large hive on that account.

I need not tell you that I cannot manage my bees as I ought to, on account of my business. I get all ready to go to work with the bees, and perhaps get a hive open, and I am hurried away to see a sick child, or to go out 10 miles into the country to see a fever patient. I am not finding fault, but I think I have done remarkably well to make all my own hives and build up an apiary in so short a time, besides caring for three young children, doing my own housework, etc. I am not ashamed to show to any my apiary, so far as the hives and quality of the bees, queens, etc., are concerned; in fact, I am rather pleased to show to visitors what I have done. So come and see for yourselves. My evenings I usually have to myself, so you will be apt to hear from me often.

Orange Co., Calif.

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Correcting Errors--Reply to Dr. Miller.

BY C. B. BANKSTON.

Doctor, I do not regret anything I said in "Bee-Keeping Errors Corrected," for I believe that I shall be able to furnish the proof. But there is one thing that I am exceedingly sorry for, and that is, that you have put such a construction upon what I said, as to make me call you a "flagrant liar." I would indeed be a very ungrateful kind of a fellow to brand one as a liar, from whose pen I have received so much pleasure and practical knowledge.

The expression, "Who ever saw laying queens fight? I never did," coming from one whose learning was so varied, and whose experience was so extensive, would naturally leave the impression upon the minds of the readers of those "Stray Straws," that they did not, else you would have found it out. I know that it had this effect upon the minds of those who read it in this vicinity.

I do not claim to have a broader means of observation than you possess, but as you were in the business about 27 years before I began, and during all those years you did not find out that laying queens would fight; and owing to the fact that I did, in a considerable less time, led me to believe that my experience was real and yours imaginary; or may be I should say, that I observed more closely than yourself.

July 17 I caged two queens, and the Central Texas Bee-Keepers' Association, or as many as could get close enough to see, saw them fight till one of them was stung and killed outright. When queens are old, they seem to lose that jealous feeling toward each other, which they entertain when young and vigorous, and will not fight, but in 95 cases in 100 they will fight it out.

As to what I said in regard to lies becoming popular, and when once stampt on the minds of the people are hard to correct, I still say that, and, Doctor, you know that it is a truth. But I did not intend to apply it to what you said about the queens fighting. At the same time, your statement made a false impression. I did not intend to lay so much stress upon what you said, as what others said, which I know that no human eye had ever seen.

I have not much faith in the traditions of our fathers, for these used to teach us that old women could bewitch a person, and calamities would visit us as a result of their black arts. The statute book of old Massachusetts used to contain a law which caused the death of many old souls who were unable to harm any one. Modern truths, and not traditions, are what we should all earnestly strive for.

You may select a man, or a set of men, in Cameron, Tex., and I will cage a half-dozen laying queens—two in each cage—and they will fight, and one-half of them will have the other half killed outright in less than half an hour. There were a few bee-keepers at the convention July 16 and 17, who did not believe that laying queens would fight. The two that I caged clincht, and I suppose the fight lasted about 10 minutes. I have seen a dozen cases, more or less, when two queens were in the same hive together, but in not one instance were they strong, vigorous queens.

When I wrote that article, I did not know that you ever said that a queen could be reared from a larva three days old. I mean a well-developt queen. I tried some larvæ two days old, and the queens I reared lookt to be about half worker and half queen. Those cells I started from three-days'-old larvæ never hatcht at all. In about 15 days after they were sealed, I cut into them, and some of them had what I would call a very sorry bee. Some of them seem to have wallowed in the jelly and died, not being able, or not having sense enough, to liberate themselves from the cell.

I want to say, Doctor, that I have not the least objection to you making a confession of your ignorance in regard to queens. You do not say that you know a queen can be reared from a larva three days' old, but refer to others, and base your faith on their reputation. I speak from my own experience, and since I have found so many mistakes made by the noble old veterans whom I love, and whose memory I shall ever cherish, I claim the right to investigate for myself.

Now, you must remember, to rear a queen from a larva three days' old, you must roll a grub out of a worker-cell which nearly fills it full, and would otherwise have been sealed on the following day, and have the bees make a queen out of it. I will tell you how to get the bees to accept one of these big grubs: Take a queen-cell which contains enough royal jelly for it to swim in. Remove the larva it contains, and introduce the larva which is three days' old. You must be sure that the larvæ have been fed 72 hours. I never doubted that a queen could be reared from a larva two days' old, but I say that good ones cannot be. If it can be done, why don't somebody say that he has done it? Why refer to some dead hero or benefactor, whose reputation for telling the truth was never disputed? I appeal to you for a living witness. I do not believe that Doolittle will say that he ever did. I do not believe that any experienced queen-breeder will say that he ever did. He may say that it can be done, but I will prove that good ones cannot be so reared, if any at all. I am conducting an experiment, and have for my witness a man whose truthfullness will be voucht for by every honest citizen of Milan Co., Tex. This man is Judge E. Y. Terral, who served the people of this county six years as county judge, and retired from office by his own accord; and whatever the result is, the Judge will submit in writing to be publisht in the American Bee Journal, and let the hammer fall where it may.

Perhaps I ought not to have said lie, because that sounds a little vulgar among refined people. You see, I am so used to calling things by their names that I just let the lie slip unnoticed.

I believe in individuality. I believe I am personally responsible for whatever impression I may make upon the minds of the people, whether it be good or bad. Therefore, I should be careful to teach things which agree with my experience (if I should teach at all), for I verily believe that if I should teach a falsehood, tho it be second-handed, I would voluntarily assume the responsibilities of its originator.

Doctor, you do not claim to have reared queens from larvæ three days' old, but you do claim, or intimate, that you are writing from experience; and you do not claim to know personally that any one else ever did rear a queen from a larva three days' old. You simply quote others' statements, and give them as authority, and in the very same issue of the Bee Journal you advise the use of three-days'-old larva. If it cannot be done, and good ones at that, have I not a right to speak? If not now, when will the time be ripe for some one to enter his protest against the inculcation of these mistakes upon the minds of the people? Try the experiment yourself, then if you still say that it can be done, I will shut up.

Doctor, I hope you will be patient with me. You must remember that I am trying to write my experience—that which I am an eye-witness to. The time the bees feed the larvæ can be prolonged. The time for the queen to hatch after it is sealed can be prolonged; the hatching of the egg, and so on; but all of this must be brought about by unnatual conditions. I mention these things in order to give the boys a chance to excuse themselves for what they have written.

I wish, in conclusion, to repeat, that if we would write our experience instead of writing somebody else's, or what we imagine, it would be a great blessing to humanity, not only in the bee-keeping fraternity, but in every other industry or organization. If we teach a falsehood, made by some one else, I think we are just as guilty as the man that made it. We should know whereof we speak. Milam Co., Tex.

Are Black Bees Capable of Improvement?

BY P. A. SIOLI.

I have read with great interest Mr. G. M. Doolittle's article on page 500, under the above heading, and tho I always considered Mr. D. as an acknowledged authority in apicultural work, and I admire his candid way in dealing out his lessons to us younger bee-fathers without pretension, I cannot help to differ from his opinion on this subject. He commences by saying:

"Probably there would have been some improvement in the black or German bee, had the apiarists of the United States taken hold of the matter with the same will in breeding which they have shown in breeding the Italian bee up to its present standard."

Had Mr. D. stopt right here, and not given any further explanation of his opinion on the subject, every thinking man and bee-keeper would heartily agree with him; but then he goes on to deny through the whole article what he himself first had thought *probable*, declaring them—the black bees—to be yet nearly the same, if not identically the same as they were when they first left the hands of the Creator.

Now, I don't wish to investigate what especial connection or other source that Mr. D. has got to prove this last assertion, but it seems to me that he is like a great many people who have an idea of their own about how this world and everything thereon, whether living or but existing, was created. They form this idea of creation to suit their own allowance, and by that means make their Creator just what Mr. L. A. Aspinwall is making the queen-bee to the worker—their dependency, and nothing but their slave.

What more old-fashioned affirmation could have been put up, than the one that the black bees were yet about the same as they were? God alone knows how many thousand years ago, while all other living creatures have past through thousands of progressing stations meanwhile. Is it not quite doubtful whether bees were created at the very outset of starting the insect world? I for one believe it more probable that bees are a formation or transition. Mr. D. himself asserts that the Italian bee, in his opinion, is nothing but a sport—in other words, a variegation, or a certain state of transition, and the same law of transition ought be applicable alike to all varieties of the same species. Why, then, deny the right and possibility of improving the black bee under certain favorable circumstances? But have there been made, anywhere or at any time, like efforts to breed the black bee with a firm view and will to improve them in certain directions? And then, it would, in my opinion, require a longer period of time to show some markt improvements in a variety so fixt, than what has been spent to do the same with the Italian bee, as the character of these latter has made breeding far easier; but give the black bee all the chances in the hands of educated bee-keepers, who are not afraid of their tail end, and you will see that improvements of this strain are not only probable but certain, I am quite sure.

Black bees are not considered so formidable and unimprovable in European countries as here. And why? Because there they have been under some way of subjection for a long time, but here they have begun to grow wild again, as half of the swarms—perhaps more—are going to the woods to be occasionally re-caught, and then in all probability put into box-hives, straw-gums, or logs, to be robbed once every year by destroying the bees.

It is impossible for me to close this without referring to the article of Mr. L. A. Aspinwall, on the same page of the American Bee Journal (500). I must say that to a certain extent I fully agree with what Mr. A. has said there about the will of the worker-bee, concerning the arrangements governing the position of the queen and the worker-bees of a colony. Tho I long ago discarded the idea of looking upon the queen as "Her Majesty," and am convinced that she is not the leader of the colony—nay, not even considered the manager of her own conduct—yet I cannot submit to the opinion that the queen-bee is *nothing* but the slave of the workers.

It seems to me, rather, that the queen is able to control—and perhaps is responsible for—the moral conduct of the colony; that it depends upon her behavior to make the bees act under certain circumstances, and I think that I have found some proof for my assertion. To illustrate this, I will give some of my own experience:

Last fall I got one colony of black bees which had been taken from a bee-tree; the combs taken out at the same time had been fixt into the frames with wire, and are as bulgy and crooked as possible. These bees are as irritable and formidable as any black bees can be found; did not swarm last spring, and ran down in stores so that I nearly had to feed them. Getting tired of them, I decided to break them up, and gave a couple frames with adhering bees to an Italian queen I had just received in another hive. Now, while the old colony was loafing, and hardly able to make their own living, this daughter colony—a mere nucleus—is working with zeal from morning to night; and when I go to inspect their hive and open the same, they never act as if they were interested in what I am doing, but unconcerned they come and go, attending to their work, and behaving about as good as Italian bees. Now, if this is only an exception—I don't know whether it may be the rule—isn't it the influence of the Italian queen that has caused this change?

Sonoma Co., Calif.

Practical Bee-Keeping with Least Attention.

BY E. H. COLLINS.

(*A talk to the Indiana State Bee-Keepers' Association.*)

My text implies that bees need some attention. Let us bear in mind, however, that Nature in bee-keeping, as in other branches of farming, does the lion's share of the work; that we simply guide her efforts in our channels and aid the bees mechanically. Remember the bees do pretty well without us, and we can give them much time or little time, as our other business may dictate.

If we become familiar with their instincts, we can tell by general appearances what their condition is, and avoid frequent manipulation of the hives.

A large apiarist in Michigan once said to a visiting bee-keeper, that "those six or eight colonies you see in that corner of the yard have not had their brood-chambers opened for several years, and they give me lots of surplus."

If the queen becomes infertile they will supersede her. If she is killed they will rear another.

When I was a young man I once workt for a man whose wife kept bees, and I ate of the honey just as much as I thought I could eat and not appear ill-bred. And I have often thought that in almost any family group, say of two or three households, there is one or more who has both tact and taste enough to care for bees, and to delight in the management of the busy little workers.

Allow me to give you my first experience. I raised a comb cautiously and slowly, expecting them to be vicious and ready for war, but was both surprised and pleased to see every one walk slowly about the comb as tho they were not the least disturbed. At that moment I became master of the situation. If you follow a few simple rules relating to their instinct, they will be easily handled, and will become your pets and your delight.

Now, suppose it is March, and a balmy day, and you have four colonies of bees. If you lift the back of the hive you can tell if they have plenty of food, and if they seem numerous you need not bother them. But if they need food place a comb of honey from last year, or a comb of syrup in the brood-chamber. Then let them alone, packt warm till June. Prepare the supers with sections and starters of light foundation some rainy day.

The first week or ten days of June you may walk by the strongest colony and turn back the corner of the cloth, and if they are not whitening the upper edges of the combs with new comb, you can go to your plowing. But if they are, you must put on two supers of sections right away. It only takes one-half minute to do this, looking to one hive every day during the first of June.

If the sections are on and half filled, you should lift the supers and place a new one under, and go on about your plowing.

If working for extracted honey, you simply place the upper story on full of empty combs, and go your way rejoicing. But if they swarm you should hive the swarm in a new hive on the old stand, and give them the sections from the parent colony. Don't put any empty combs in the brood-chamber in the new hive. Give only full combs and frames with starters.

When your honey season is over you can take it some day if you wish, but if for home use I would leave it on the hive. It gets a little travel-stained, but has a richer hive-flavor, and is always new and fresh tasting. When winter comes, take it off and close the bees down in the brood-chamber; place some inverted wooden butter dishes over them; see that they have plenty of honey by lifting the back end of the hive, and cover with ducking, fill the top box with clover chaff, and let them go till March. Be sure that mice can't get into the hive.

You need a few tools about the apiary—smoker and a veil for four or five colonies. I roll up carpet paper for my smoker.

There is no reason why most of the familes of Indiana should not thus with a little care and tact enjoy the richest luxury the sweet world can afford.

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Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offers on page 599.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Didn't Know It from a Bumble-Bee.

I have been laboring under the delusion that when an insect was placed before me I could tell whether it was a bumble-bee or not. It seems I don't know as much as I thought I did. Not long ago a bee-keeper sent an insect that he said was caught in the act of killing a bee, and wanted to know what it was. I promptly replied that it was a bumble-bee, and altho I didn't say so, I wondered how he could have made such a mistake as to think it was killing bees. The bee-keeper will please accept my most humble apology.

At the Buffalo convention there was pinned on the wall a specimen of Asilus Missouriensis, sent by S. T. Pettit, of Canada. When I saw that, I was immediately convicted of gross ignorance in having formerly called it a bumble-bee. As pictured and described in Prof. Cook's Manual, it seems very little like a bumble-bee, being rather long and slender, but in its dead and dried state it looks very different. It might be allowed that I was not altogether inexcusable for my ignorance when two veteran bee-keepers, on looking at the specimen sent by Mr. Pettit, said without any hesitation, "It's a bumble-bee."

Asilus Missouriensi, or bee-stabber, as it is also called, has not as yet appeared in great numbers in any given locality, and it would be a terrible thing if it should, but its appearance as far north as Minnesota and Canada makes it wise to be on the lookout; altho just how such an enemy could be successfully fought may yet be an unsolved problem. But if you see anything kill a bee, be just a little slow about pronouncing it a "bumble-bee." C. C. M.

Transferring—Use of Drones—Prevention of Swarming.

1. How can I transfer bees from box-hives into frame hives?
2. What is the use of drones in a colony of bees?
3. How is it best to prevent bees from swarming?

NEW YORK.

ANSWERS.—1. As I learn from another part of your letter that you have "Langstroth on the Honey-Bee," I refer you to that for full instruction as to transferring. But you will hardly want to transfer before next spring, and after studying the subject in your text-book if questions arise, don't hesitate to send them in.

2. The drones are the males. Without meeting a drone, the queen might lay eggs, but such eggs would never produce anything but drones. Some think that the drones have for additional office the task of helping to keep up the heat of the hive, but the same weight of workers would do this equally well. The majority of bee-keepers think it best to suppress drone-rearing to a great extent, and this can be done by allowing as little drone-comb as possible.

3. I don't know. How I wish I did. I have lain awake lots over the question, but never reacht any answer entirely satisfactory. If you work for extracted honey and give the bees abundant room, you may get along with very little swarming, but sometimes you'll have swarms in spite of every-

thing. The only sure way I know of is to brimstone the bees. I never knew of their swarming after being killed with brimstone, if they were killed dead enough. The stereotyped reply as to aids in prevention of swarming is to give the bees plenty of room, shade, ventilation, etc. Changing the old queen for a young one just matured helps. Some say they have complete success by raising the hive on blocks ½ or ¾ of an inch. Others block up in the same way, only to have the bees swarm. Nevertheless, it's a good thing.

Foul-Broody Honey for Table Use.

Is the honey obtained from colonies affected by foul brood fit for table use? I am told by local apiarists that it is all right for such use. Having several colonies affected, I do not wish to sacrifice the honey unless it be necessary. OHIO.

ANSWER.—Probably there is nothing injurious to the human stomach in bacillus alvei, and it could not be detected in the taste, but I would rather have the opinion of Mr. McEvoy or some one more familiar with the subject.—[On page 530, Mr. McEvoy gives his opinion on this subject.—ED.]

Where to Put on Extra Supers—Difference in Colonies.

1. When the bees have one super nearly filled, where should I put the next super, under or on top of the first?
2. A few of my bees gathered over 100 pounds, and some others never started in the supers, but seem to be in just as good condition. What is the reason? MINNESOTA.

ANSWERS.—1. That depends upon the time and prospect. Early in the season when there is every prospect that the first super will be fully completed, and perhaps a second or more as well, put the empty super under. The bees will commence on it just a little sooner, and will go on finishing the first nearly as promptly as if a second had not been added. But toward the close of the season, when you feel a little doubtful whether the bees need more room, and yet feel a little afraid they may be crampt if it is not given, put the empty super on top. They'll not commence on it unless they really need it, and it will be better to have the one finisht than two partly finisht.

2. There's a good bit of difference in the working qualities of two colonies of bees that may appear of equal strength, and that colony may account for it. Closer examination might show a difference in the number of bees. A colony with a vigorous queen will do better than one with a queen nearly played out.

Carrying Out Larvæ.

What causes bees to carry out their young before they mature? IOWA.

ANSWER.—When the honey harvest closes, the bees generally drive out the drones, and not satisfied with giving the cold shoulder to the fully-matured and flying "gentlemen," they drag the larvæ and nearly-mature drones out of the cells. Very likely that is what you have seen, altho possibly you may have seen them drag out a few worker-larvæ that have been injured by the wax-worms spinning their webs through the cappings.

Why Did the Bees Act So?

I had a swarm come out and alight. I put it into a new hive, gave it part full sheets and part starters. It stopt in about two hours, and then went back. It came out again in the afternoon and flew around, and then went back into the hive again. In about two hours again it came out, and lit. I hived it, and put a queen-excluder over the entrance, and thought I had them all right. But they all went back that evening, and the next morning I lookt in the hive and, behold, I had the queen all right. I put the hive up by the old one, and opened the new one. I do not know what became of her (as I did not care if I had a swarm or not). That was about 10 in the morning. In the afternoon they swarmed again. I hustled after them again (you know, in the best of spirits). I got them in again, put the queen-excluder over the entrance, and they stayed all night. What was the matter? When I had the queen I thought they would not leave?
ONTARIO.

ANSWER.—It isn't an easy thing to give a reason for all the freaks of bees. It is possible that the bees left in the first place because the hive was too hot. The queen being imprisoned would not hinder their leaving, for they would go on the presumption that she was along, and not finding her in their company, they don't seem to think of looking for her in the new hive, but return to the old one. The second time, they swarmed later in the day, and before they had time to make up their minds to leave, the cooler part of the day came on, and before the hottest time of the next day came on they had got so fairly to work that they had no more notion of deserting. Now, all this is merely guessing, and you can take it for what it is worth.

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Editorial Comments.

A Bee-Keepers' Picnic.—"Morton's brother-in-law," of New York State, sends us the following account of a picnic held recently by a New York bee-keepers' association:

> EDITOR YORK:—The annual picnic of the Cortland Bee-Keepers' Association met at Riverside Park, Freeville, N. Y., Sept. 2, with a good attendance, and Editor E. R. Root the honored guest.
>
> After discussing the chicken-pies, etc., President Wood called us to the usual, all-absorbing topic—Bees and how to manage them to get the best returns for our labor. The main facts brought out by the comparison of experiences, was, first, there isn't much in it anyway; and, profits are growing gradually and beautifully less; that this season's crop would be not over one-third the usual one, with prices low, in this locality.
>
> None of us ever saw foul brood, and don't wish to, although Mr. Root tried to make us think it would be a good thing to ship some in, in order to know it when we see it, and could stamp it out before it got a big start.
>
> After a visit to the "George Junior Republic," and a vote that we had a general all-around good time, the picnickers departed for home, wishing we may all meet again a year hence.
>
> MORTON'S BROTHER-IN-LAW.

It isn't often that a bee-keepers' association goes on a picnic. But we see no reason why they shouldn't. Judging from the jolly ways of the New York bee-keepers at the Buffalo convention, we are very certain a picnic with them would be an enjoyable affair. We found them a grand lot of folks—especially the two that "cotted" in the same room with us two nights of the convention. They were Morton and Morton's brother-in-law. Two good samples!

◆ ◆ ◆

Buffalo Convention Notes.—We promist last week to tell more about that sprightly Canadian lady bee-keeper that attended the convention. Well, she generously invited Dr. Miller, Mr. Poppleton, Mr. Bliss and wife, with the writer, to go home with her at the close of the meeting on Thursday (the last day), which we all did. We took the electric street cars to Niagara Falls, walkt across the new span bridge of the Grand Trunk railroad, and soon found ourselves at the cozy home of Mr. and Mrs. Stewart, about ¾ of a mile from the roaring Niagara.

After supper (which was rather late) we all retired, being very weary at the close of a three days' session of the convention. Dr. Miller and the writer slept in a room adjoining one that was used as a sentry-box by the British during the War of 1812–14 Eighty-three years seems a long time, doesn't it? The Stewarts live on what is known as Lundy's Lane, made famous on account of the decisive battle of that War having been fought there—only about 20 rods from where we slept. There were 1,700 soldiers that fell on both sides (almost equally divided) that fateful July 25, 1814, and as they could not be buried, for some good reason, the dead soldiers were stackt up, a layer of rails, and then a layer of the dead, and so on, and then the whole pile burned. Awful, wasn't it? And until but recently nothing would grow on that spot, because of the earth being saturated with the oil from the human bodies.

Surely we were on historic ground, and the highest point near the Falls. We could look away seven miles and see Brock's monument, with beautiful scenery all along the enchanting view.

The next morning we also lookt at Mrs. Stewart's apiary of 24 colonies, from which she had taken about 1,000 pounds of extracted honey this year. She had seven colonies in the spring, and afterward bought four more. She has no difficulty in disposing of all her surplus honey right in the home market, and no wonder, for isn't her honey just the finest possible?

Friday morning we all went to see the wonderful Niagara Falls. As the distance was short we walkt down. We (the writer) had never seen those famous waterfalls, and can't describe them or our feelings when on that clear, beautiful morning we beheld them. We had often thought we would like to go to Niagara Falls, but could scarcely believe that right then and there we were gazing at one of the most wonderful wonders on this continent. We felt that surely the water must soon cease falling over those rocks and dashing to the abyss nearly 160 feet below. But they just kept on, as they had been doing all the long centuries gone by. Wonderful Niagara! Beautiful Niagara! Oh, could we but stand, untiring, and gaze into thy glassy depths forever!

But we had to hasten on. Had only about three hours to "do" the Falls, and then away to Buffalo again to take the afternoon train for Chicago, once more to dive into the work of getting out the Bee Journal, so that it might retain its record of *never* leaving the office *late*.

Dr. Miller and the writer arrived in Chicago, after a pleasant night's riding, about 9:30 a.m., Saturday, and at 4:15 p.m. the Doctor took the train for his home, having been away a whole week, or practically from Sunday to Sunday.

We hope very soon now, to be able to begin to publish the report of the convention proceedings. But as the Secretary, Dr. Mason, visited in New York a week or two after the convention, and as Mr. Hutchinson, the reporter, on account of his recent awful affliction will consequently be unable to furnish his part of the report as promptly as anticipated, all will necessarily be delayed. But we trust when we do begin it, we can crowd it right through. It will all be publisht before the end of the present volume, at any rate. So, please have patience.

◆ ◆ ◆

Editor Hutchinson's Great Sorrow.—Somehow some of the private affairs of editors of bee-papers seem to be of more interest to their fellow editors and bee-keepers in general, than are the private affairs of newspaper editors to their readers or fellow editors. Hence it is, that when a bee-keeper is in trouble, a stream of sympathy at once goes out to him in his distress. This will especially be so in the case of Mr. Hutchinson's recent troubles, for he has so many personal friends among bee-keepers who will be interested in knowing the particulars of what we only referred to briefly two weeks ago.

While it is not always a pleasant thing to publish the details of certain affairs, still in this instance we think we will be pardoned if we reproduce in Mr. Hutchinson's own tender words the full account of the cause of his late home sorrows. Here is what he said in the September Review:

THE SAD DEATH OF SWEET LITTLE FERN.

> Five years ago this very day (August 31) there came to our home the sweetest, brightest little girl baby that I ever knew. How she gladdened our hearts as day by day she unfolded like the human blossom that she was. Happiness deeper and sweeter than

I have enjoyed with her no mortal ever knew. Now the little form is laid away, with the roses and ferns that she loved so well twined about her; and over us all hangs the awful sorrow that she died by her own mother's hand.

Most of the friends of the Review know that for nearly two years Mrs. Hutchinson has been ailing mentally, all of last winter being past in the asylum. She was so much improved, but so home-sick last spring, that the superintendent and myself believed that she would improve faster at home, and she was allowed to come home, to remain so long as her condition would warrant it. All summer we have been working to build up her general health, by nourishing food, baths, out-door exercise, and the like, she often taking long drives with Ivy and Fern. She sometimes had periods of depression, but on the whole she seemed on the upgrade, and we hoped the worst was over. She had never exhibited the least tendency towards suicide or homicide, and nothing was feared in this direction.

When I went away to the Buffalo convention she was not feeling very well, and I hesitated long and seriously as to whether I better go, but I finally decided to go, she assuring me that she was no worse than at many times previous When I reacht home Friday evening I experienced a feeling of great relief to find all the loved ones alive and apparently well. All were asleep except my wife, and we sat and talkt until quite late, she trying to convince me that there was great danger that the whole family would eventually become insane, and I trying to allay any such delusion. Apparently I succeeded, but little sleep came to me as I tost on my pillow and tried to think what course to pursue. It would not answer to go away to the fairs and leave her alone. I must either give up going to the fairs, or take her back to the asylum while I was away, or else take her with me. I decided upon the latter course, thinking that the trip might do her good.

In the morning she felt much better, and I told her of my decision, and she agreed to go, something she had before declined to do. Then she said that she believed she would go out driving, as she had not been out in several days and it might do her good. I went down town to get a woman to come and stay with the girls while we were away at the fairs, and while there I saw my wife and little Fern driving along. I went out and spoke to them and askt if there was anything that they wanted, and Fern sat there looking so sweet and happy in a little new dress, and she said, "I am going to have some candy." I said, "That's nice." And she smiled, and I thought what a sweet, *sweet*, happy little body she is. It was the last time I ever saw her alive.

Her mother went to a drug-store and bought a bottle of chloroform, drove outside of the city limits, saturated a handkerchief with the deadly fluid and applied it to the child's face, holding it there until life was extinct. Then she laid her under some bushes and drove back for Ivy.

Of course we inquired for Fern, but she said that she had left her at a neighbor's where she often went to play with another little girl. She drove away with Ivy to the outskirts of the city, where she attempted to destroy her life with a revolver, firing three shots, one passing through the right breast, one striking her in the small of the back, and one in the side of the face, knocking out two teeth, passing through the tongue and striking the back of the throat. Ivy's screams and the pistol shots attracted a man, who came on the run and took the revolver away.

The unfortunate mother was taken to the jail, and Ivy brought home and her wounds drest. At present she is doing nicely, and there is every hope that she may recover. Searching parties started out and soon returned with the dead body of poor, dear, little Fern.

The sight of my poor wife is the most heart-rending of anything that can be imagined. In one sense she is rational, that is, she realizes fully what she has done, and her grief is something beyond description. That alone is enough to destroy her reason, and in her weakened mental and nervous condition I see no hope for her recovery. In all probability she will pass the remainder of her days behind asylum doors, and the fewer those days the better for all.

She tells me that it was the fear that we were all in danger of being sent to the asylum that impelled her to the awful deed. She intended to kill us all and then destroy herself. She says there was an impulse to do this, that she was *powerless* to resist; she struggled with all her strength, but something forced her on and *on*, and *compelled* her to do the awful deed Then she will burst out crying, "My poor little girl, my poor lttle Fern, how could I, how *could* I! Oh, if I only had her sweet little face back here beside me." But we all know that the poor woman was not responsible for her act. She passes hours on her knees in prayer, then she will toss on her couch in a frenzy of grief, and then she may pass hours in a dazed condition, in which she practically feels and realizes nothing.

I had a note-book full of notes taken at the convention, besides numerous little items pickt up from the numerous friends that were present, and I also intended to give my readers my impressions of Niagara falls, in short, to make this issue a bright and sparkling number, but you must excuse me—my heart is too sad

I may say that I am going to the fairs just the same, that is, if Ivy continues to improve. It is my only hope—to keep myself busy. Then there are others dependent upon me, and I shall not begin now to do what I never did before—shirk my duty. I expect to go right on printing the Review, but I must ask the friends to be indulgent once more, while I am fitting my back to this great burden.

Now while perhaps there is not much that many of us can do to help our bereaved friend and brother (aside from a deep feeling of sincerest sympathy for him in his sacred sadness), there is one thing that some of our readers can do, if they are also readers of the Bee-Keepers' Review. They can send a year's subscription to him *at once*, and help a little financially, for in such times as those through which he has been called to pass, money is very needful. And particularly if any are in arrears for their subscription to the Review, be sure to pay it all up *now*, and add an extra dollar or two for advance subscription. We know Mr. Hutchinson would greatly appreciate this, tho he hasn't the slightest idea of our making the suggestion.

If you are not a subscriber to the Review, suppose you try it for a year in addition to the American Bee Journal—it is well worth the dollar askt for it. Just send direct to W. Z. Hutchinson, 613 Wood St., Flint, Mich.

The Weekly Budget.

Mr. C. P. Dadant, of Hancock, Ill., wrote Sept. 10: "Hot, hot, hot! and the bees are beginning to show the shortage up here on the hills.

Mr G. M. Doolittle, writing us under date of Sept. 13, said:

"Dear. Bro. York:—I have been on the sick list ever since I returned from Buffalo. I caught a severe cold and it settled on my lungs. I have not been entirely confined to the house, but have only done any work by actually driving myself to it. I am slowly recovering, and hope to be as well as ever soon."

Mr. Thomas G. Newman, we learn through a friend, on account of being too much of a tax on his health, felt compelled to decline a re-election to the presidency of the California State Spiritualists' Association, which held its annual meeting in San Francisco the first week of this month. It will be remembered that Mr. Newman is now editor and publisher of a weekly spiritualistic periodical—the Philosophical Journal.

Mr. C. Theilmann, of Wabasha Co., Minn., writing us Sept. 11, said:

Friend York:—I have just come home from our State Fair, where I judged the honey exhibit, which was better than I had expected for such a poor season. There was considerable last year's honey in it, especially extracted. All the bee-keepers had the same story to tell—none, or but little, white honey. All of them have been getting some fall honey the past two weeks—probably enough for their immediate home market. C. Theilmann.

Mr. J. F. McIntyre, of Ventura Co., Calif., made us a very pleasant call Thursday, Sept. 16, when on his way home from the Buffalo convention and a visit among relatives and friends in Ontario, Canada. Mr. McIntyre is one of the substantial bee-keepers of the Pacific Coast, has 600 colonies in one apiary, and his crop this year is about 18 tons of extracted honey. He is one of the independent bee-men—holds his crop until the year after it is produced, and thereby gets a better price. Mr. McIntyre has been in California for 16 years, and thinks there's no other place to live like his locality, outside of that State. His family consists of wife and five daughters.

Mr. Geo. Poindexter, of Dewitt Co., Ill., says his local newspaper—the Herald—"will exhibit at the State fair, what represents an old-time log-cabin home, made entirely from honey. In size it is about one foot in height and perhaps a foot square. The house has the old-fashioned roof, with the chimney for the fireplace running up the side. The one door swings ajar, allowing one a view of the interior of the hut. He also has made of honey proportionately in size to the log-cabin, an exact reproduction of his home and apiary. From honey is made his house, and scattered all around it, also made from pure honey, are the bee-hives. Placed here and there, just thick enough to give the apiary yard a pretty appearance, are artificial flowers. A fence made out of comb foundation encircles the apiary and house, and the entire thing is enclosed in a large glass frame separate from the log-cabin, which is arranged in a frame alone." This will be quite an attraction for the apiarian department of the Illinois State Fair this month.

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General Items.

Bees Did Well.

There are a good many small bee-keepers here, and they do not take any bee-paper; but when they get stuck they come to me to get them out.

My bees did very well this year. I got 1400 pounds of honey from 16 colonies, and there was no basswood here this year, so all I got was from clover.

D. E. Lane.

Washtenaw Co., Mich., Sept. 12.

A Case of Laying Worker.

Under date of Aug. 13, I wrote in regard to a swarm of bees that swarmed, etc., as per page 567. I have examined them, by request, weekly. The swarm that swarmed out hung on the limb for over three weeks, then returned to the old colony. This morning I examined again, and found evidence of a laying worker, which confirms my first theory, that the queen became unfit for work, and not dying until all brood was too far advanced for queen-rearing, as I found no brood or eggs the first time I examined them—7 p.m., Aug. 12.

J. D. Coles.

Salem Co., N. J., Sept. 11.

A Good Minnesota Bee-Locality.

Last spring I moved from Stevens county to this place. I arrived here May 31, and my bees arrived June 4. The white clover was in blossom, and has continued in blossom ever since. The roadsides and old fields are white with clover now (Sept. 3), and bees are working on it as much as they have any time this season.

I think this is the best locality for honey and the honey-bee of any place I ever lived in. It is a timbered country, with numerous streams of water, and the finest natural meadows I ever saw. The streams are all lined with willow, as also are all low, moist lands which furnish an abundance of bee-forage. The woods are full of thorn-apple, and there is not any blossom here that bees work on as much as they do this tree. The woods are full of red raspberry, which furnishes a large amount of honey.

Bees get an early start in the spring here, and have an abundance of blossoms all the season. At the present time the fields are yellow with goldenrod. There are two plants that grow here, the names of which no one knows. I will send a sample to the editor of the Bee Journal for him to ascertain what they are. One of them resembles catnip. It blossoms about July 15, and lasts till September, and it is covered with bees while it lasts. I do not know what quality the honey is, or whether light or dark. The other grows about 2½ to 3 feet high, with numerous branches; commences to blossom July 1, and lasts till September; it is said to yield the best honey of anything that grows in this vicinity. It is known as fireweed, because it always grows on land that has been cleared and burnt. The seed is scattered the same as the thistle or milkweed.

There is plenty of basswood here, but the caterpillars are so destructive every spring that there has been no blossoms

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Dr. Geo. Lacke, Newburgh, Ind.

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for the last three or four years. There are a number of bee-keepers here, but they all complain of more swarms than honey this year.

I started in the spring with six colonies, and have 12 very strong colonies now. One man in this vicinity has taken 160 pounds from one colony this year. This is the best I have heard of yet. I askt him if he read the American Bee Journal, and he said he did, and he was well pleased with it.

Honey is selling at present for 10 and 12 cents per pound, in one-pound sections.
S. B. SMITH.
Millelacs Co., Minn., Sept. 6.

[We cannot name the first flower described, and we regret to say our botanist must have gone on a vacation and forgotten to return. We have sent him several flowers lately, but have received no response. This will explain to others also why they have not seen their specimens named in the Bee Journal. Prof. T. J. Burrill, Champaign, Ill., is an excellent botanist, and no doubt would be glad to name any flower specimens sent to him. When writing him, be sure to enclose at least a 2-cent stamp for reply.

The second flower described by Mr. Smith is no doubt the willow-herb, or fireweed, so famous as a honey-plant in the burnt districts of Michigan and Wisconsin.—EDITOR.]

Best Season for Seven Years.

Bees have done, and are doing finely, this year. It is like old times—nothing like it for six or seven years.
D. C. MCLEOD.
Christian Co., Ill., Sept. 11.

A Drouthy Year.

Kansas is drouthy this year, and there will not be half a crop of corn here. I am 70 years old, and keep 20 colonies of bees. I mean to improve and do the best I can, so I think by reading the experience of older ones in the business, I will learn something, or some better way to do.
H. W. FELT.
Norton Co., Kans., Sept. 9.

Did the Queen Remate?

Having had rather a queer experience this year with a colony of goldens, I have concluded to write it up for the benefit of the "craft."

On April 27, 1896, I purchast a golden queen whose bees were simply beauties. I introduced her all right in a colony of blacks, and soon all were as pretty "goldens" as I ever saw, and remained so throughout the year 1896; but last spring what was my surprise to see about half of the young bees were "good blacks" again. "Sez I to myself, sez I," she's been superseded. So into them I went, and lo and behold there was the same old clipt queen. Well, I let them go awhile, and they nearly all were dark hybrids, some black, sure enough.

About June 1, I took her out and put her into an empty hive with just a few bees to see what she would show there, and thinking perhaps there was another queen in the hive. Well, the colony

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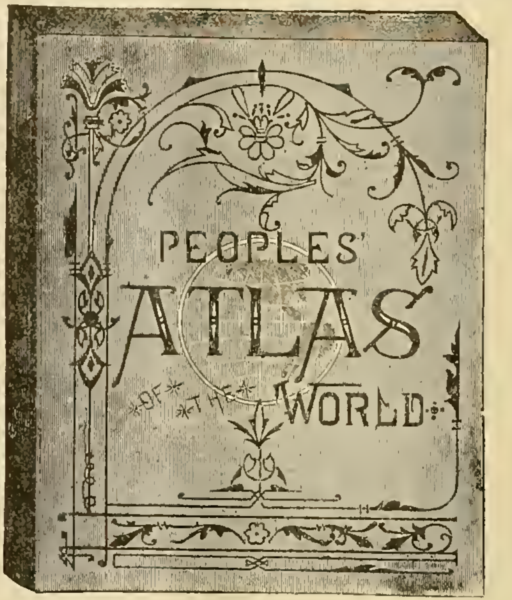

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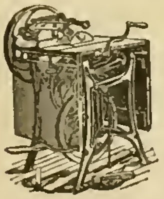

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went to work to rear a queen. I tore down their cells, as I didn't want any of her stock; kept them queenless for about 30 days, until there was neither brood nor eggs in the hive, to be sure that there was no other queen, and then gave them a golden queen, since which time all has gone well.

Now, to return to the old queen. She built up a splendid colony of very dark hybrids, and I finally "removed" her and introduced a golden to them. Now, this queen was clipt, and could not raise herself 4 inches from the ground, both wings on one side being clipt close. Her bees were all right for one year, then all wrong. There is no mistake but it is one and the same queen. Question: Did she remate in the hive?

The facts as above set forth I can substantiate by another bee-keeper, who watcht the case from start to finish.

This has been a fine honey-year. I started in the spring with six colonies, in dovetailed hives, have now 13, and have taken 498 pounds of extracted honey. My bees are in good condition for winter, and will average 25 pounds to the colony. I think the honey-flow is over here now, and consequently I have got all I will get.

In conclusion I will say that I owe the Bee Journal one dollar and my success. The dollar the publishers will get soon, but the success and Bee Journal I want to keep, so send it on.

J. W. OGLESBY.

Logan Co., Ark., Aug. 30.

◆

Poor Season.

Our season has been very poor here. This month is our best for honey, but the bees are not gaining very fast—average one pound a day per colony. I have 39 colonies. A. E. SMITH.

Posey Co., Ind., Sept. 8.

◆

A Rather Poor Season.

This has been a rather poor honey season—a scant half-crop of white clover.

Our prospects for a fall honey-crop were reasonably good, but just now we are suffering from a drouth which may cut it short. W. J. CULLINAN.

Adams Co., Ill., Sept. 7.

◆

Another Case of Laying Worker.

The bees commenced casting swarms as early as May 15, and from the first swarm one issued June 25. All of the colonies cast three to four swarms. The largest swarm issued August 12, from a second swarm, making our apiary consist of 25 colonies (starting in Spring with only seven colonies) beside two swarms having united and two getting away.

The main object of this article is to give my experience with a laying worker. In one of my oldest colonies, which swarmed 4 or 5 times, I discovered, about two weeks ago, that the colony was very weak (having swarmed about July 10) and upon investigation I found it was queenless—nearly devoured by moth—and only contained about a handful of workers, but lots of honey in the brood-frames. I immediately opened up the colony, which had swarmed on Aug. 12, and found two frames containing queen-cells, one of which I gave to the queenless colony. While in the act of placing

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For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 25 cents per pound, CASH ; or 28 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly,** for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,

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J. M. Jenkins, Wetumpka, Ala.

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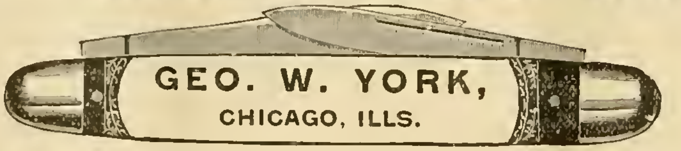
THE "NOVELTY" POCKET-KNIFE



Your Name on the Knife.—When ordering, be sure to say just what Name and Address you wish put on the Knife.

The NOVELTY KNIFE is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed an AMERICAN BEE JOURNAL reminder, and on the other side, name and residence of the Subscriber.

The material entering into this celebrated knife is of the very best quality; the blades are handforged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring steel, and the finish of handle as described above. It will last a lifetime, with proper usage.

Why purchase the Novelty Knife? In case a good knife is lost, the chances are, the owner will never recover it; but if the Novelty is lost, having name and address of owner, the finder will return it; otherwise to try to destroy the name and address, would destroy the knife. If traveling, and you meet with a serious accident, and are so fortunate as to have one of the Novelties, your pocket KNIFE will serve as an identifier; and in case of death, your relatives will at once be apprised of the accident.

How appropriate this knife is for a Christmas, New Year or birthday present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, a lady to a gentleman, or vice versa, a son to a mother, a husband to a wife, a brother to a sister or a gentleman to a lady—the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

How to Get this Valuable Knife.—We send it postpaid, for $1. , or give it as a Premium to the one sending us **three new Subscribers** to the BEE JOURNAL (with $3.00), and we will also send to each new name a copy of the Premium Edition of the book "Bees and Honey." We club the Novelty Knife with the BEE JOURNAL for one year, both for $1.90.

Any Name and Address Put on the Knife.

GEORGE W. YORK & CO.,
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Allow about two weeks for your order to be filled.

the frame in the hive, a queen popt out of one of the cells, and disappeared in the hive. Robbers had by this time commenced their ravages, so I abandoned the idea of recovering her, counting on one of the other cells should she be destroyed. I closed the entrance, except space for one bee, and moved the hive to another part of the yard. I examined the hive the next day, finding it still queenless, with the remaining cells destroyed. I also found the evidence of a laying worker. It is needless to say I was perplext, and spent some sleepless hours that night studying out plans, but awoke in the morning with the following program mapt out:

I closed the entrance with wire gauze, sprinkled the hive, bees, and frames with sugar and peppermint flavored water, exchanged three frames with other colonies for brood and hovering bees, which I also sprinkled with the mint water on placing in the hive. The same evening I introduced a caged queen, and fed them well. The following morning I found the queen liberated, and doing well as a mother. Of course, I found some dead bees, but since then the colony is working well, and with favorable weather I shall expect some surplus honey.

I have since introduced three Italian queens with success. Will some old apiarist kindly criticise, and point out my mistakes, in a later number of the Bee Journal?
W. I. JONES.
St. Louis City Co., Mo., Aug. 30.

* * *

What Five Colonies Did.

I bought 5 colonies last spring for $7.50. All swarmed once, and I hived them on the old stand. The 5 now swarms gave me 313 pounds of comb honey, which I sold for 15 cents a pound. I transferred the old colonies, as they were in old boxes, and divided them into 40 nuclei, and built them up to full colonies. I got 10 quarts of extracted honey, 5 pounds of wax, and 6 gallons of fine vinegar. The 45 colonies are now worth $180; the honey, wax, and vinegar, $53.45, making a total of $233.45. How is that for 5 old box-hive colonies?

I have 85 colonies in all, starting in 1896 with 2, and bought 6 last spring. My best colonies gave me 130 pounds of white clover comb honey, and they are all hustling on the fall flowers. Why go to the Klondike? Just buy a few colonies of bees, and subscribe for the American Bee Journal, and you will have something as good as gold.—a sure thing!
W. D. CRAIG.
Douglas Co., Ill., Sept. 13.

* * *

Late Swarming.

Bees have done fairly well. I had 9 colonies, spring count. There has been a continuous flow of nectar since wild mustard blossomed in June, but the worst feature of it all is my bees swarmed but twice (or two new swarms) in July, none in June, and they were strong, so they were storing honey freely in the supers, and now they are swarming freely. I have had 4 swarms so far in September, and it looks like a good many more to follow. All are large swarms. Golden-rod is in bloom. I do not know what to do with the new swarms, only to let them go where they please.

In all probability, in about 10 days or two weeks we will have a frost. I would like to ask if this is anything new for bees to swarm so freely in September. I have three to four supers on, and then the bees hang out by the pailful.
H. K. MOULTON.
Cottonwood Co., Minn., Sept. 6.

* * *

See the premium offers on page 599!

BRO. YORK'S
OWN TESTIMONY

AFTER 18 MONTHS' USE.

Chicago, July 27th, 1897.
Dear Dr. House:
My office force have fallen in love with your Yellowzones. I enclose $1.00 for as many as you mail for that amount. Success to you in your excellent work.
Very truly yours,
GEO. W. YORK.

P. S. Say, *I* think as much of your "Zones" as the "girls" do. They just straightened out a very severe headache I had awhile ago. Worth their weight in the yellow metal now being raved about up in Alaska. G. W. Y.

YELLOWZONES
FOR PAIN AND FEVER.

An honest and efficient remedy for all fevers, headaches, colds, grip, rheumatism, neuralgia, etc. And every box guaranteed—but no customer has ever yet asked for his money back.

One box, with supply of *Zonet Cathartics*, 25c; six boxes for $1.00. Most orders are for Dollar lots.

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Drawer 1, Detour, Mich.

Convention Notices.

Tennessee.—The Southern East Tennessee Bee-Keepers' Association will hold its annual session at Cooksons Creek, Friday Oct. 1, beginning at 9 o'clock, a.m. Bee-keepers are earnestly requested to attend. The program foreshadows entertainment for the most fastidious. W. J. COPELAND, Sec.
Fetzerton, Tenn.

Wisconsin.—The Southwestern Wisconsin Bee-Keepers' Association will hold its annual convention at Boscobel, October 6 and 7, 1897. All the leading apiarian subjects of the day will be thoroughly discust, and a general good time is expected. All are cordially invited to come and bring their friends.
Calamine, Wis. F. L. MURRAY, Sec.

Utah.—The Utah Bee-Keepers' Association will hold their semi-annual meeting Oct. 5 at 10 a.m., in the City and County Building, Salt Lake City. A full program in the interest of the industry will be presented, and every bee-keeper in the State should be interested in the success of the industry; especially in getting our new foul brood law into operation. We now have a good law that can be put into effective force; it can be made to reach every bee-keeper and every colony of bees in the State, if necessary. Then let us be alive to the issue; let us make good use of this weapon put into our hands, as long as there is a vestige of the disease found in our own fair State. All are cordially invited.
E. S. LOVESY, Pres.
J. B. FAGO, Sec., Mill Creek, Utah.

* * *

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you and secure some of the premiums we offer.

HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Sept. 1.—Fancy white 12c.; No. 1 10 to 11c.; fancy amber, 9c.; No. 1, 7 to 8c; fancy dark 7 to 8c.; No 1, 7c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½c. Beeswax, 26 to 27c.

There is a little honey selling now, and with this month sales ought to increase. It is also a good time to ship comb, as wax is strong, and resists jars in transit.

Kansas City, Mo., Aug. 10.—Fancy white, 13c.; No. 1 11 to 12c.; fancy amber, 10 to 11c.; No. 1, 9 to 10c.; fancy dark, 8 to 9c.; No. 1, 7 to 8c. Extracted, white, 5 to 5½c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 25c.

There is very little demand for honey this hot weather, but will improve with cooler weather.

St. Louis, Mo., Aug. 9.—Fancy white, 12 to 12½c; No. 1, 11 to 11½c.; fancy amber, 10 to 10½c.; No 1, 9 to 9½c fancy dark, 8 to 8½c; No. 1, 5 to 7c. Extracted, white, 5 to 5½c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 24 to 24½c.

The weather so far this season has been too warm for the free movement of honey, but with the present prices on sugar we think there should be a good demand for extracted honey at the above prices. One car of 24,000 pounds sold since our last quotation on basis of above prices. Beeswax finds ready sale at 24c. for prime, while choice stock brings a little more.

Cleveland, Ohio, Aug. 31.—Fancy white, 13c.; No. 1, 12c; fancy amber, 8 to 9c.; fancy dark, 6 to 7c. Extracted, white, 6½ to 7c.; amber, 5 to 5½c.

Fancy white is in demand, but very little is coming in.

Philadelphia, Pa., Sept. 3.—Fancy white, 13½ to 14c.; No 1, 12c. Extracted, white, 6c.; amber, 4 to 5c.; dark, 4c. Beeswax, 24c.

No arrivals of dark or amber honey yet to any extent. Reports from all parts show large yields of honey in the East.

Buffalo, N. Y., Sept. 1.—Fancy white, 11 to 12c; No. 1, 9 to 10c., fancy amber, 8 to 9 c.; No. 1, 7 to 8c.; fancy dark, 6 to 7c.; No. 1 5 6c. Extracted, white, 5 to 6c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 22 to 26c.

Honey is selling just a little better, but we advise moderate shipments till October and November, when liberal amounts can be sold.

Milwaukee, Wis., Sept. 2.—Fancy white, 12 to 13c.; No. 1, 11 to 12c; fancy amber, 8 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 4 to 4½c. Beeswax, 25 to 27c.

The receipts of new comb honey begin to arrive, and of very nice quality. The extracted is improving in quality. There is danger of not allowing it to cure before shipping. The demand is only moderate, but equal to former seasons, as while fruit is plenty honey is not wanted so much. Later there must be improved demand.

New York, N. Y., Sept. 7.—Fancy white, 12 to 13c.; off grades, 10 to 11c; buckwheat, 9 to 10c. Extracted, California, white, 5 to 5½c.; light amber, 4½ to 5c. Southern, 50 to 55c. a gallon.

New crop of comb honey is arriving more freely, and we have a good demand. California extracted is in fairly good demand, but all other kinds are neglected. Beeswax is quiet and easier.

Albany, N. Y., Sept. 7.—Fancy white, 12 to 13c.; No 1, 10 to 12c.; No. 1 amber, 9 to 10c.; No. 1 dark, 8 to 9c.

New crop comb honey is arriving quite freely, but as yet there is very little demand. The quality is about the same as last year. Extracted is very quiet.

Minneapolis, Minn., Sept. 1. — Fancy white, 11 to 13c.; No. 1, 10 to 11c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c.; fancy dark, 8 to 9c.; No. 1 dark, 6 to 7c. Extracted, white, 5 to 6c. Beeswax, 23 to 25c.

Only strictly fancy stock wanted in this market. Market is firm but sales are slow.

Detroit, Mich., Aug. 31—Fancy white, 11 to 12c.; No. 1 white, 10-11c. Extracted, white, 5½ to 6½c. Beeswax, 25 to 26c.

No dark honey is yet offered. There is a steady demand for fancy white. Extracted is of good quality.

San Francisco, Calif., Sept. 8. — White comb, 1-lbs., 7 to 9c; amber comb, 4 to 6c. Extracted, white, 4 to 4⅜c.; light amber, 3¼ to 3¾c.; dark tule, 2¾c. Beeswax, fair to choice, 22 to 24c.

Seldom are there larger shipments outward of this article than have been made the current week. The British ship, Rajore, sailing for London, took 1,026 cases. The British ship Howth, for same destination, carried 400 cases. At this rate not many weeks would be required to clean up stocks of extracted. Shippers name 3½c. for amber and 4c. for water white. On local account better prices are realized. Comb honey is moving slowly, but as soon as we have some cool weather there will be more inquiry.

Indianapolis, Ind., Sept. 1.—Fancy white, 11 to 13c.; No 1, 9 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c. Beeswax, 25c.

In an experience of eight years I have never before seen the demand so good for comb honey as it is just now. Consumers claim that honey is better this year than usual. Extracted honey is selling slowly.

Boston, Mass., Sept 1.—Fancy white, 12 to 13c.; No. 1, 12c.; fancy amber, 10 to 11c. Extracted, white, 6½ to 7c.; amber, 6 to 6½c Beeswax, 27c.

Honey is now being received in small lots and meeting a fair demand at above prices. Demand will naturally increase with cooler weather, and with the short Eastern crop, it should clean up in good shape.

Cincinnati, Ohio, Sept. 7. — Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½ to 4cc. Beeswax, 20 to 25c.

Our prices for best white comb honey ranges between 11 and 12c Have no demand for dark comb honey. Demand is good for all kinds of honey.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.

R. A. BURNETT & Co., 163 South Water Street.

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HILDRETH BROS. & SEGELKEN,
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Kansas City, Mo.

C. C. CLEMOMS & Co., 423 Walnut St

Buffalo, N. Y.

BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.

CHAS. DADANT & SON

Philadelphia, Pa.

WM. A. SELSER, 10 Vine St.

Cleveland, Ohio.

A. B. WILLIAMS & CO., 80 & 82 Broadway.

St. Louis, Mo.

WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.

S. H. HALL & CO.

Milwaukee, Wis.

A. V. BISHOP & CO.

Boston, Mass.

BLAKE, SCOTT & LEE., 57 Chatham Street.

Detroit, Mich.

M. H. HUNT, Bell Branch, Wayne Co., Mich.

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WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.

CHAS. MCCULLOCH & CO., 380 Broadway.

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C. F. MUTH & SON, cor. Freeman & Central Avs.

Bee-Keepers' Photograph.—We have now on hand a limited number of excellent photographs of prominent bee-keepers—a number of pictures on one card. The likeness of 49 of them are shown on one of the photographs, and 121 on the other. We will send them, postpaid, for 30 cts. a card, mailing from the 121 kind first; then after they are all gone, we will send the 49 kind. So those who order first will get the most "faces" for their money. Send orders to the Bee Journal office.

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By W. E Forest, M. D., 12th Edition, Revised, Illustrated, and Enlarged. This is the greatest and best work ever publisht as a HOME PHYSICIAN, and as

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are considered, and there is not a curable disease that has not been helpt by some of the "*New Methods*" given here; even those who have been pronounced **Consumptive** have been entirely cured. While for **Rheumatism, Indigestion, Dyspepsia, Constipation, Dysentary, Liver and Kidney Troubles, Catarrh, Emaciation, General Debility, Nervous Exhaustion, Diseases Peculiar to Women,** etc., the methods are sure, and can be carried out at one's own home and with little or no expense.

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So confident are the publishers of the results, that they offer to refund the money to any one who will try "New Methods" thoroughly, if the book is returned in good condition.

The New Edition

is illustrated with a number of Anatomical plates from the best English work on Anatomy publisht, and others made expressly for this work; contains 300 pages, printed on fine calendered paper, and although the price of the first edition (much smaller in size and without illustrations) was $2.50, we sell this at $1.00, postpaid.

PREMIUM OFFERS.

For sending us two new subscribers to the Bee Journal for one year, we will mail you the book free as a premium, or we will mail it for sending your own advance renewal and one new yearly subscriber. This is a wonderful premium offer. Address all orders to—

GEORGE W. YORK & CO.,
CHICAGO, ILLS.

Dehorn the Dairy Cows.—The dehorning of cattle is a subject which may be said to be settled in the affirmative so far as the great dairy districts of Illinois, Iowa and Minnesota are concerned. A journey through these States will show to the intelligent observer that nearly one-half the cattle are minus their horns. And it appears to be the case that the large herds have been dehorned more completely than the smaller ones.

Removing the horns, when it is properly done by the Keystone Dehorning Knives made by A. C. Brosius, Cochranville, Pa., is not a painful operation, as is evidenced by the fact that it will scarcely interfere with the flow of a cow's milk as much as the chase around the pasture in front of the farmer's dog will do. Those best acquainted with dehorning and its results are its strongest advocates.

Choice Honey for sale Cheap

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Don't buy cheaply and roughly made Goods, when you can have **the best—such as we make.**

The American Bee - Keeper
[monthly, now in its 7th year]
36 Pages—50 Cents a Year.
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THE W. T. FALCONER MFG. CO.,
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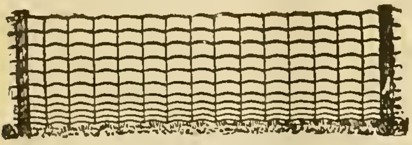

A MAN

Across the street lugging a water melon always attracts attention. So does a man showing up the superior qualities of Page fence. Why? Because men like a good thing.
PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

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For a limited time we wish to make our readers a **special offer** on booklets on Bees, Poultry, Health, etc. Upon receipt of **75 cents** we will mail any **6** of the list below: and **for $1.25** we will mail the **whole dozen**:

1. Foul Brood, by Dr. Howard	25c
2. Poultry for Market and Profit	25c
3. Turkeys for Market and Profit	25c
4. Our Poultry Doctor	30c
5. Capons and Caponiz'ng	30c
6. Hand-Book of Health, by Dr. Foote	25c
7. Kendall's Horse-Book	25c
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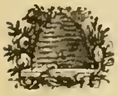

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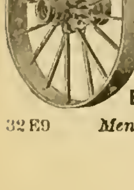

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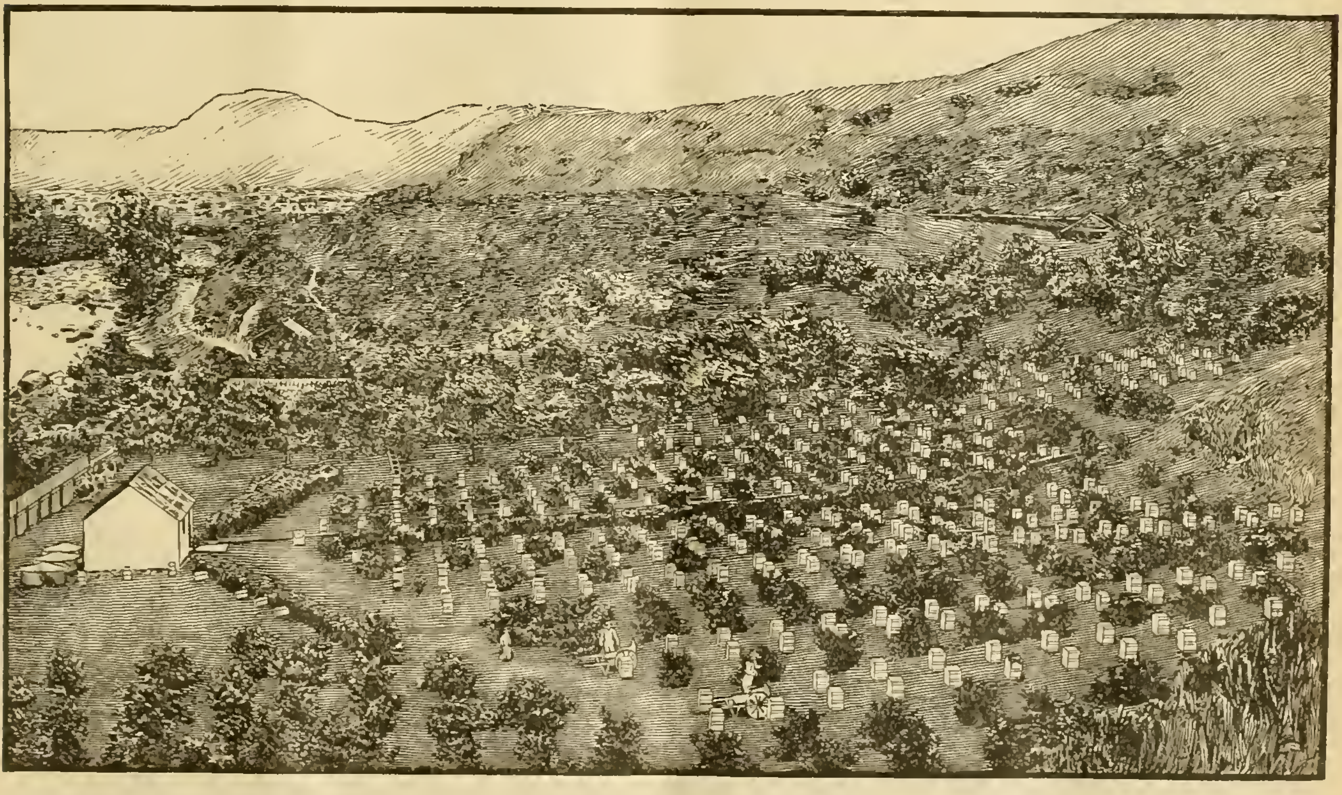
37th Year. CHICAGO, ILL., SEPTEMBER 30, 1897. No. 39.

Contributed Articles

No. 1.—Establishing a Standard for Queens.

BY DR. E. GALLUP.

QUES.—"Dr. Gallup, you mention about queens not coming up to your standard. Please explain through the American Bee Journal what your standard for a queen is, and oblige.—SUBSCRIBER."



Apiary of Mr. J. F. McIntyre, in Ventura County, California—Looking Westward.

ANS.—Now you have me, and on one of the most important questions in successfull bee-keeping. It is a question that is but very imperfectly understood in all its bearings by a large portion of queen-breeders as well as the lay members of the bee-keeping fraternity, and to fully explain will require a series of articles or a continued story. It would require quite a book, but as I am not going into the queen-rearing business, only for my own amusement, I will do the best I can to make it interesting for the readers of the "Old Reliable."

I sold a colony of bees last spring to a boy (Arthur McFadden), and I guaranteed that he would be satisfied with his purchase. Now, for the result: He has nine good, strong colonies of bees, and one swarm left because they could not wait in the hot sun for him to make a hive, and right here he learned his first lesson, that is, always to have one or more hives ready. He was going to school, and afraid the bees would swarm and get away, so I made an equal division of the combs and bees, set the new hive by the side of the old one, left the old queen in the old hive and moved it to the left, moved the new division up near where the old one stood, so as to have about an equal proportion of the working or field bees go into each hive. I do not smoke into the entrance of the hive, and use but very little smoke, so the bees kept right on working out and in both hives about as freely as tho they had not been disturbed. In this manner we can rear very good queens, but not always the best.

Each division cast a good-sized swarm. All the rest of his increase was by natural swarming. That queen has filled the hives and led out six large swarms besides the first divided "swarm." It is Aug. 30, and if the weather is right, she has another good month and a half yet to swarm in. That queen was one of my own rearing. All the queens I obtained last season, with the exception of two from other parties, have been superseded, and not one of my own rearing has failed yet. My increase this season has nearly all been from queens of my own rearing.

A queen that comes up to my standard will fill the combs as solid and smooth as a board with brood when sealed. I have them that when I put in a foundation every cell with the exception of about an inch at the top and two inches in the top corners will have an egg deposited in it, and all hatch at about the same time.

Now, we will suppose I had kept the queen I had sold to Arthur, run her for honey instead of increase—it could have been done on the Dadant plan, as I have abundance of reason to know. Yes, you certainly can keep them from swarming after the honey-flow commences, right here in California.

Arthur has three supers filled with honey, and he purchast one dollar's worth of comb foundation for starters. I cannot tell how long lived that queen will be; neither can I tell how long lived her workers will be, but I have had queens that kept up their vigor until six years old, and workers from such a queen, hatcht in May, were many of them alive in October. If I live long enough, there is more coming about queens, and I was never known to die yet, so have patience.

Orange Co., Calif.

Colony in a House Basement—Season's Report.

BY G. S. CREGO.

I began the season with eight colonies, all in 10-frame dovetailed hives, seven of them having been wintered on the summer stands, and the remaining colony in the basement of my house. In regard to this latter colony, my experience would indicate that there is little danger of keeping bees too warm if they have all the stores they can consume. This hive is located within about 12 feet of the furnace with which I heat the house, sitting back about a foot from a window, and having a passage-way the full width of the hive-entrance leading out through a slot sawed in the bottom rail of the window. The hive was not packt in any way, and I do not think the temperature went below 55° at any time during the winter, and much of the time it must have been nearly 70°. The colony was very strong at the beginning of last winter, having probably 50 pounds of sealed honey. In March there were good-sized patches of sealed brood in the central combs, and in May I had to put on sections in order to head off swarming preparations. The bees went into the sections at once, having the first super filled and nearly all capt on June 21, the honey being almost entirely furnisht by dandelion. While some of the colonies outside stored more honey in sections during the season, none of them started work in the supers until about the time this colony had its first one filled. The product from this basement colony, exclusive of the dandelion honey, was 96 completed sections, 16 more being partly filled but not capt at the end of the honey-flow.

I had only one swarm (which I re-united with the parent colony 48 hours after it issued), my only increase being a swarm which deserted from some other yard and came to me. My entire crop amounts to 750 sections of honey, and about 300 pounds of extracted. The two colonies producing the most honey were hybrids, one turning out 212 sections, and the other filling 30 Hoffman frames for extracting. A third colony—Italians—completed 112 sections and 10 combs for extracting.

Aside from the colony which sent out the one swarm, only one other made any preparations for swarming, which I nipt in the bud by taking away their queen for five days and cutting out cells, after which I returned the queen by simply letting her run in at the entrance.

The honey is of unusually good quality this season, and sections as a rule well filled, 144 sections, sold to a grocer, weighing 141 pounds net.

My present 9 colonies are all very strong, and have an average of not less than 40 pounds of sealed stores each on which to stand the winter. I put a packing case over each hive, on its summer stand, putting about three inches of dry leaves all around the hive. For top covering I remove the hive-cover and put over the frames a board ¼ inch thick, and on top of this board I put 8 or 10 inches of leaves with the hive-cover laid on top of the leaves. The thin pine board allows sufficient ventilation to keep the inside of the hive perfectly dry.

Cook Co., Ill., Sept. 15.

How to Winter Bees in Central Illinois.

BY C. P. DADANT.

QUES.—"How would you winter bees in central Illinois—outdoors or indoors?—SUBSCRIBER."

ANS.—We usually winter our bees out-of-doors, with a shelter of forest leaves packt around three sides of the hive, held in place by a sort of lattice-work, made of lath and twine. We aim to leave the front or south side of the hive uncovered, to give the bees the advantage of every sunny day.

We have, like many others, had our hobbies in wintering. We have tried cellar-wintering, trenches or silos, chaff hives, box-covers, and plain exposure. We had ups and downs, successful years and disastrous ones, during our 33 years of experience in this climate, and we have come to the conclusion that we are here on the limit of the successful outdoor wintering climate for bees. A little farther north than the line of central Illinois we believe it is probably safest to winter in the cellar, but here, or farther south, the outdoor exposure in ordinary winters cannot be much improved upon.

Mr. Dadant, Sr. began his bee-keeping experiences here in 1864, and for three or four years did not attempt to improve on the natural circumstances of the bees. Then he tried a trench or silo, in a manner similar to the method used by farmers to keep potatoes, turnips or cabbages. For a few years this method succeeded well, and the bees seemed to prosper, being furnisht ventilation by a series of small tubes reaching through the ground covering. The trenches were usually dug when the ground began to freeze, and those sheltered repositories lookt very warm and cozy, being first covered with boards, then with a bed of straw, then with dirt and another bed of straw, and more dirt, till a thickness of 12 or 18 inches was reacht. But one winter it began to rain shortly after the bees were put in, and the winter remained mild and soft. The ground was soakt all winter, with an occasional superficial freeze, and when the bees were removed in the spring many of them were dead from dampness, the combs were moldy, and the hives in decidedly bad condition. This ended our experience with trenches.

We then tried thick-wall hives, movable-frame hives made of straw two inches thick. These were a positive improvement over the one-inch pine bee-hives, but they were so difficult to make, and so hard to keep in repair, that we finally abandoned them to try double-wall hives. The chaff hive with wall three inches thick and filled with chaff or sawdust took our fancy to such an extent that we manufactured 80 of these great, big "barus," that weighed 80 pounds empty, and were, we thought, the last step to successful wintering. True, the bees wintered fairly in them, but the trouble was to carry them through the spring. Those hives were so thick that the sunshine of a March day did not reach through, and the bees remained closeted till they became sick from too lengthy confinement, and more spring dwindling took place in these than in any other hives.

Cellar-wintering which we tried at different times did not give us full satisfaction. In a cold, hard winter when the bees had first-class honey for stores, there was no trouble in bringing them through, but when the winter was mild and the cellar consequently rather warm, the bees became restless, and many of them got lost trying to leave the hive. I have seen the floor of the bee-cellar in such a season literally covered with dead bees. Yet, if the honey was of good quality so that it would not endanger their lives by causing dysentery, there was but little trouble, especially if the spring came in a steady manner with fairly warm days. But in cold, backward springs, if the bees have been taken out too early because the apiarist has concluded that winter is over, what a pity it is to see those bees, softened by their long confinement, flying to their death, one after another, while in search of pollen or water on unpropitious days! We have always found more loss from this cause with bees that had been wintered in the cellar than with those that had roughed it, unless the latter had been so weakened by heavy losses from cold that they were totally unable to keep the hive warm.

The best method we have seen thus far, but which requires quite an outlay and quite a great deal of attention, is to cover the hives with a shed, closed during cold weather, or to cover each colony with an outer case, removable at will. But sheds are expensive and cumbrous, and are more or less in the way during the summer, especially as they harbor ants, moths, spiders, wasps and other pests. Out-of-door cases that are removed in spring are very good, but it represents quite an expense, and it takes a large amount of shelter to keep these over the summer.

Upon the whole, we concluded a number of years ago that a good, plain hive made thickest on the back (which is always the north side with us), and well sheltered from the north and west winds is the best thing in our climate. The wind-break we use seems sufficient to guard against the extremes of temperature.

Yet, to an amateur who has few bees and plenty of leisure, we would recommend to try the outer winter covering. It is quite important to have the bees well sheltered, but it is fully as important to give them the benefit of the warm sun which incites breeding early in the spring. We once accidentally took care of half a dozen hives that had been placed in a hothouse with an outdoor entrance, and we have never seen colonies as strong as these were, neither do we ever expect to harvest from our bees as much honey as these six colonies yielded during that summer. Perhaps such an experiment cannot be called conclusive, as it was not repeated, but we have no doubt that the influence of the early spring sun, with the natural heat of their home, had much to do with the result they gave. Hancock Co., Ill.

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Moving Bees to Bean-Fields in California.

BY W. T. RICHARDSON.

(Read at the University Farmers' Institute, at Santa Paula, Calif.)

I have taken the subject of moving bees to the lima bean-fields because many have askt how we prepared the bees for their journey from the mountain apiaries to the bean-fields. In preparing the hives we use a separator, which is a number of blocks about two inches in length and thickness according to the space between the frames, all the blocks being attacht by the upper ends to a tin strip and pointed at their lower ends. Thus, all the blocks are held in place by the tin strip, and they keep the frames from crushing against each other in moving, which would cause a great loss of bees and damage to the brood.

SCREENS ABOVE AND BELOW.—Another important feature is to have a light frame, made of about 1½-inch square stuff, the size of the hive, and on this tack wire-netting. This is used in the place of the solid cover in moving. Most of these screen frames are so constructed that there is a space of about one inch between the netting and the bees. I am not sure but that still more room would be better, especially for those hives that are populous with bees. The entrance is closed up with an entrance-block. This block is cut out so that the full size of the opening is exposed. A piece of wire-cloth is tackt across the block to prevent the bees from getting out, yet allowing air to get into the hive, thereby causing circulation and producing a current throughout the hive and out at the screen above. It is desirable that the bees have cool, fresh air. Confining them and the moving makes them very uneasy, and they are constantly trying to get out through the screens.

MOVING AT NIGHT.—The preparations for moving can all be made during the day, except the closing of the entrances, which cannot be done until nearly dark, because the bees are flying more or less during the day, and the putting in of the separators and wire frames adds to their disturbance, so that in some hives the bees do not get settled and all inside until nearly or quite dark. I prefer to move bees at night. It is always cooler for the bees, and I think that is of great importance. I also think that the bees are not so much inclined to worry and to make the same frantic efforts to get out that they do in the sunshine.

THE USE OF RACKS.—Some have fitted racks to their wagons for moving bees. Mr. Mendelson has the best one I have seen for the purpose. I have not made any rack, but have used my common ranch wagons. I bought what is known as "bolster springs." The capacity of one pair is three tons, and of the other a ton and a half. With these springs a load of bees will ride about as easily as in an ordinary four-spring wagon. With two wagons and six horses I have had hauled 120 colonies to the load for a distance of about 20 miles from my apiaries on the Simi to the bean-fields near Hueneme.

DOES IT PAY TO MOVE?—My first experience in moving to the bean-fields was in 1895, and that season I moved about 650 colonies. I figured that I was a trifle ahead in making the experiment. The next season, 1896, was a very poor season in the mountains. The bees did not get any honey there. I moved 300 colonies to the bean-fields. They gathered 1½ tons of honey, and built up so that they were in better condition for work this spring, so that I considered that the movement for 1896 paid. The present season has not been favorable for the gathering of honey in the bean-fields. The early part of the season was cool and foggy; the hot weather within the past two weeks has damaged the beans seriously, so that the late blossom is not yielding much nectar. I cannot at present state just what the result will be this season. I have about concluded that a season when the bees do well in the mountains will not justify moving to the bean-fields, when one takes into consideration the labor and the risk (and there is considerable). With a poor season in the mountains, when the bees do not build up, and have not plenty of honey to ensure good condition of bees in the following spring, I would advise moving bees.

EFFECT ON THE BEANS.—I have often been askt if the bees injure the growing beans. Mr. Alvord, who has given the subject careful consideration, says that the bees are a benefit to the crop. Mr. Jacob Maulhart said to me that he was satisfied that his crop was better for having my bees at his place last year. I have never heard of a practical grower who dissented from this view. Ventura Co., Calif.

Trials and Troubles of a Novice at Queen-Rearing—The Honey-Guide, Etc.

BY S. A. DEACON.

After having well studied the theory of queen-rearing—the works of Doolittle, Heddon, Simmins and others—I have just been trying my prentice hand at the practice, and find them two totally different things! It is early summer just now in these latitudes, the mercury ranging anywhere 'twixt 65° and 104° in the shade. There's a very slight honey-flow just at present, but I am feeding. The following is my first experience of queen-rearing:

October 1 I made a strong colony queenless and broodless, as per the books; and gave 14 Doolittle's dipt cups containing just-hatcht larvæ floating in royal jelly. Oct. 4 I lookt and found only two accepted. Oct. 6 I tried again with another strong colony. No cups this time, but tried Heddon's plan of breaking three cells into one, whereby, we are informed, we can get from 40 to 75 fine, vigorous queens from one colony! Well, Oct. 8 I opened this hive and found two cells built out, and the remainder, *i. e.*, the dozen or so other breakages, all neatly repaired!

I then went home, lay me down, and took a big think—*a la* Doolittle. I knew it was no good consulting my bee-books—I might as well have turned to the Psalms of David or Solomon's Song; their authors don't admit the possibility of you getting less than a score or two of the finest queens the oldest man ever saw from adhering to their simple directions. As a result of the big think, I got puzzle-headed, but decided to try again; so, Oct. 9 I broke down cells—*a la* Heddon—again, to find on Oct. 11 the partitions again neatly reconstructed; that's to say, all but two, as on the former occasion.

I took another big think, and concluded it was owing to the honey-flow not being strong enough. But, then, Heddon says when that's the case, feed—and I fed. Now, just when all this was going on, I happened to transfer some old box-hives. One of these I found was queenless, and they had any number of queen-cells! This hive contained any quantity of sealed brood, and, left to themselves, queen-rearing was a success. Why on earth, then, do Heddon, Simmins, Doolittle, etc., insist upon a colony prepared for queen-rearing being deprived of *all* its brood? If they would only assign a reason for it; but they don't. I see a contributor to the Bee Journal for Oct. 19, 1893, does say, "Remove all combs containing *unsealed* larvæ," and that any one can understand; but why those who have publisht books for our guidance should all agree in demanding that the prepared colony be deprived of *all* its brood, puzzles me entirely.

Now, can any one tell where, in this my first essay at queen-rearing, I have been at fault? Suggestions, advice, or information leading to a knowledge of the why and wherefore will be most liberally rewarded—with thanks. My own idea is, that the deprivation of *all* their brood discouraged the bees. But, then, what do *I* know about it? All I have to do is to follow implicitly and unquestioningly the plain directions given by those experienced leaders of our calling whose names I have mentioned. For instance, in the Bee Journal of June 28, 1894, a writer not merely directs that all the brood be taken away, but even underlines the word *all*. Heddon directs placing the comb of hatching larvæ on which you wish your queen-cells built, in an empty hive, and secure a population for it by placing it on the stand of a strong colony. This will, of course, catch only flying or nectar-gathering bees. Some other authority—Doolittle, I think—says again that such bees are no good for the required purpose, but that the majority should be nurse-bees, with any amount of chyme about them all ready to feed the little infantas with.

Do your census returns, in giving the number of inmates of your mad asylums, state the *causes* of said inmates' disease? I ask because it would be rather interesting to know what proportion had gone dafty as the result of embarking in the honey-producing business, and in vainly trying to reconcile the strangely conflicting statements and assertions of those who volunteer for its literary department.

THE HONEY GUIDE OF SOUTH AFRICA.

In the number for July 30, 1896, Mr. James B. Drury contributes a gossipy couple of columns on a great variety of subjects more or less related to our pursuit; *inter alia*, he tells us all about the *Indicator Minar*, or "Honey-Guide"—tho not *all*; and seeing that he suggests that *I* should give some information about this wonderful little bird, I will supply the omission.

Mr. D., or his informant, opines, or as good as asserts, that the bird's object in leading human beings to a bee-nest is to secure a feed of the larvæ, or grubs. Of course, such a meal invariably *results* from its intelligent and highly interesting labors, but if the satisfying of his appetite were his sole object, how comes it that instead of to a bee-nest he occasionally leads one to a big puff-adder, or other of the serpent tribe; or, as it once happened to myself, onto the fresh spoor or track of a big tiger! It was in a narrow, rocky gorge, or cleft in the mountains, and being unarmed, I rapidly retraced my steps, muttering anything but blessings on the ornithological little brat that so perseveringly led me into danger. Altho in most cases the bird guides one to a bee-nest, it is always advisable for his follower to keep his eyes open to guard against being led into danger by it.

MAILING QUEENS TO SOUTH AFRICA—AN EXPERIMENT.

I have just received from Mr. Doolittle—through the ordinary letter post—a beautiful, or *once* no doubt beautiful—Italian queen; for, alas! she and her retinue of about 20 workers arrived lifeless. It was an experiment, and I am inclined to think very nearly a successful one; for fully three parts of the candy must have been consumed, inducing the belief that they died when near their journey's end. From the date of mailing, at Mr. D.'s home in New York, to arrival here, was 45 days. They came, by my own suggestion, by direct steamer from New York city—a very slow service I have since ascertained. Had they been mailed via England, the journey would not have occupied more than 30 days, and the chances of their safe arrival would have been greatly increast. Of course, I was terribly grieved about it, but it being an experiment, failure was not altogether unlookt for. But good Mr. Doolittle (whose great works so strangely belie his patronymic) is possest of too much determination, enterprise and pluck to own up beaten by one failure, and the experiment will be repeated.

South Africa, Oct. 23, 1896.

[Somehow, the foregoing article was misplaced, or it would have appeared long ago. But the delay doesn't seem to have lessened its interest and readableness.—EDITOR.]

Closing of the Season—Mating of Queens—Autumn Work.

BY L. A. ASPINWALL.

Irrespective of climatic conditions, the wheels of time move onward, and with our best efforts, we fail to keep apace with its inevitable trend. Most of us plan in excess of our ability to accomplish, both as regards the things attempted and the time occupied. I fully intended to clip all virgin queens in my yard the present season, but the opening of a rich honey-flow intercepted my plans.

Altho the season has been variable in extremes of temperature, still, bee-keepers in Michigan have experienced an old-time honey-yield; and altho a single season cannot fully compensate for the failure of many in succession, still, I am thankful that Nature has not exhausted her resources, and hopeful that a cycle of good years has returned.

The temperature of late has been rather low for rapid storage of honey, however, there is ample time for an abundance of buckwheat and autumn flowers, if accompanied by warm nights which are likely to follow the cool spell. In the meantime these periods of rest will be productive of a larger force of workers, and will fully compensate for the present inactivity. Such was the condition previous to white clover bloom in June. The cool weather served to increase the number of field-bees by reason of inactivity. These periods of rest are furnisht by Nature to all creatures, otherwise constant wear would detract from any advantage that might be gained.

Towards the close of a season it is but natural to take a retrospective view. In looking back I see where I failed in neglecting to clip the wings of all my virgin queens. For some unaccountable reason more than the usual number have mismated. It is probably due to a natural increase of the surrounding bees in good seasons, 1896 being favorable to such a result.

The mismated ones in my yard among the unclipt averaged one in every four. The results attendant upon clipping are highly satisfactory; the mismates averaging but two in every 24, or one in 12. With a larger number, the results might have been still more satisfactory.

It is also satisfactory to note that none were lost in the marital flight; particularly so, as many had more than one-sixteenth of an inch clipt from their wings. It may be well to note that great accuracy was observed in clipping to maintain a uniform length, and preserve the balancing power requisite in flight.

With September comes the removal of all sections. I usually employ a few strong colonies to complete all unfinisht ones as the supers are emptied. The best will often contain a few, possibly one or two at the corners, particularly so if the weather has been cool. Working on this plan I had no unfinisht ones from white clover. However, the chances are less favorable towards the close of the season.

The passing of the honey season confronts us with preparations for winter. I am an advocate for heavy stores, and believe such preparation in autumn is a requisite to success the following season. There are those who contend that an excess of winter stores is objectionable, and liable to contaminate the comb honey when not consumed for breeding purposes. Inasmuch as colonies differ in the amount consumed, no rule as to a limited amount can be given. I, therefore, prefer to occupy the sure ground of an abundance. Furthermore, breeding is pusht forward more rapidly in the spring with resources at hand. Even if a few sections contain a little old or dark honey, it is clear gain, taking into consideration the increast production which accrues from strong colonies. I will state that sugar syrup used in feeding is generally consumed first, being stored in the central combs, so that little or none remains until the general honey-flow, hence, will find no place in the surplus departments.

Believing as I do that an abundance should be provided for all colonies, the matter of feeding should receive careful consideration. Successful wintering depends largely upon location of the stores; an abundance in the outside combs will not compensate for any deficiency in the central ones where the most is required. Such an expedient as Hill's device as a make-shift will answer in the South or for cellar-wintering, but for out-door wintering it serves no purpose whatever, aside from affording space which is usually soiled with excrement.

In consideration of the foregoing facts I invariably defer feeding until all the brood has matured, thus giving place for storage accessible to the cluster. We should bear in mind that the central combs which usually contain the least honey, are occupied by the greatest number of bees.

The delay of feeding until breeding is over usually brings the work into October for Michigan latitude; which with thick syrup necessitates a better feeder than either the Miller or Heddon. Feeders upon that principle compel a distance of travel favorable to warm weather only, and at a season when least required. Altho not a manufacturer of feeders, I have constructed and used one for several years which supplies the food directly above the cluster. It is atmospheric, and holds about 12 pounds.

I am also an advocate for thick syrup. The bee instinctively prepares her stores by evaporating all the moisture or watery portion previous to sealing the cells. Possibly a trace may be left, as honey even after being sealed improves with age unless exposed to dampness. Let us bear in mind that honey primarily is the food of bees, and that water is not. We shall then be better able to understand the cause of losses attendant upon out-door wintering. We appropriate the early and well cured stores of our bees, leaving the late and partly cured for them, and wonder why so much fatality occurs in wintering. Pure honey, well cured, is almost entirely appropriated by the system of the bee; water cannot be appropriated in any quantity, consequently must be voided, necessitating many unseasonable cleansing flights.

In making syrup I prefer to use about 12 or 14 pounds of confectioners' A sugar to a quart of water, bringing it to a boiling point for two or three minutes, at which time I add less than a half teaspoonful of tartaric acid dissolved in a little water, to prevent granulation. Vinegar will not answer. I know many who have followed the old beaten path will contend that such syrup is too thick, and in the next breath recommend candy for wintering. While I have no use for candy, I do recommend the feeding of syrup just as thick as can possibly be used. It tends to concentrate the food, also the storage of it, by reason of which the colony remains more impact, conserving its vitality. Colonies prepared as before stated for out-door wintering in properly constructed hives will furnish abundant evidence of its success, not only the following spring, but throughout the season. With abundant stores, of concentrated food, accessible to the cluster, I would just as quickly insure a colony in properly constructed hives against loss in winters, as any other live stock.

With the failure of honey a tendency to rob is often manifested. I scarcely believe the tendency is inherent, but has been developt by the careless exposure of honey for generations. Bees are susceptible of lasting impressions. This is evinced by their ability to combat the bee-moth, which, upon its first appearance in this country, was much more destructive than in later years. The bees patrol the hive-entrance each evening to prevent their inroads. The exposure of honey also makes an impression, which they not only remember during life, but by some means transmit to the younger ones.

I have never experienced any trouble from robbing. I leave no honey or sweets exposed in any form. All colonies are maintained strong. All entrances are contracted according to the strength of the colonies.—Review.

Jackson Co., Mich., Aug. 18.

⁂

The Man who gets up early in the morning may be all right, but the one who is widest awake after he gets up is apt to get ahead of him.—Campbell's Soil Culture.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Equalizing Colonies.

I have two colonies of bees close together on one stand. One is very strong, and the other very weak. Would it be advisable to take a few frames (how many?) from the strong one and put in the hive of the weak one to equalize their strength? IOWA.

ANSWER.—That depends somewhat upon circumstances. If the strong one has six or eight frames of brood it can spare two without damage, and it will be better for the weak one that the frames contain as much as possible of sealed brood, for that will the sooner give them an accession of bees. But if the weather is cool, you must not give them so much brood that they cannot cover it. If the strong one cannot spare more, or if the weak one cannot take care of more than a single frame, let that be given, and then if weather continues favorable, another can be given a week or two later. Put an empty or partly empty comb in place of the brood-comb taken, that is, don't put the empty comb outside of the brood-nest.

Perhaps a Drone-Laying Queen.

I have struck a conundrum in a bee-hive. In looking over a hive I find a queen laying as many as four eggs in one cell, and sticking them to the side of the cell, only about one-third from the top. Perhaps one egg in five will be in the bottom of the cell. The queen is a Carniolan mated to an Italian drone, about one year old. She is not a good layer. Brood is rather scarce. Her offspring is two-thirds drones. Why is this thus? MISSOURI.

ANSWER.—It happens not infrequently that a queen begins to be played out, and a large portion of her eggs produce drones even when laid in worker-cells. Usually this takes place only after two or three years of service, but some queens are thus practically old inside of a year. Laying an egg on the side instead of the bottom of a cell is less frequent, a queen sometimes doing so in her first laying and afterward placing her eggs properly. Occasionally a queen lays more than one egg in a cell, but with a good queen this ought to happen only when the number of bees or the size of the brood-nest is quite small. Your case seems to be unusually complicated, and I don't know what makes the trouble, but have a suspicion that a physical defect of some kind may account for all three of the troubles. The quickest cure, and perhaps the only one, is to pinch off the queen's head.

Amount of Honey for Winter Stores—Bee-Odor.

1. It speaks in the text-books as if supers were not kept on over winter. Is all the food for the winter to be stored in the brood-chamber? If so, how do you estimate how much stock the bees have? and how do you put in the food if they have an insufficient quantity?

2. Is there any perceptible odor to bees in good condition? MASSACHUSETTS.

ANSWERS.—1. It is not advisable to leave honey in the super over the colony through the winter, not but what it might be well enough for the bees, but ruinous to the sections. The winter stores should all be in the brood-chamber, and you may form a good estimate by inspection or by weighing. If you find in the brood-chamber the equivalent of four or five frames filled solid with honey, or if you find the hive to weigh 40 or 50 pounds more than the empty hive weighed, you need not be anxious. Generally, a colony that has workt in supers will have enough stores in the frames, unless the number of frames be too small. As a rule, no honey is stored in sections until the brood-chamber is filled, and if 10 frames are present there is little doubt as to sufficiency of stores. With eight frames, there may or may not be enough. To supply the deficiency, where feeding is necessary, there is no better way than to take out some of the partly-filled or empty frames and put in their place combs filled with sealed honey. If such combs are not at hand, then feed sugar and water. If you have no other feeders, use the crock-and-plate plan. It has already been given a number of times, but possibly you may have overlookt it.

Take a gallon crock or other vessel, put into it granulated sugar and hot or cold water, an equal number of pints or pounds of each, and then put over the crock one or two thicknesses of woolen cloth, or three to six thicknesses of cotton cloth, according to the thickness of the cloth. Over this put a plate upside down, then with one hand under the crock and the other over the plate, turn the whole thing upside down. Set this on top of the frames, putting on an empty hive-body, and covering up so no bee can get in from the outside. This sort of feeding should be done as early as possible.

2. Yes, bees have a distinct odor of their own. If you put your nose to a hive in the cellar in winter, you may discover a moldy smell, quite disagreeable, or a sour smell, especially if the cellar is damp and the honey thin, or if all is right you will get nothing but the bee-smell—a really pleasant odor, unlike anything else, which it would not be easy to describe in words.

Questions on Queenlessness.

1. Is absence of brood, except in winter, an unvarying sign of queenlessness?

2. What is the "queenless hum" referred to occasionally by some writers?

3. What kind of watchfulness is necessary, what particular signs must one look out for to detect this serious trouble early, before it has weakened the colony beyond recovery?

The subject of queenlessness has not been treated in this year's paper, and I find little definite information, especially respecting the outside-of-hive evidences—none in Cook's Manual. CALIFORNIA.

ANSWERS.—1. No. During the working season, if no eggs or brood are present it is usually a sign that no laying queen is present, but a virgin queen may be present. In October many queens stop laying, and sometimes even in September.

2. It's very hard to describe in words a "queenless hum" so that it can easily be recognized by the description. Perhaps "roar" would come as near to the sound as "hum." When you open a hive, if they at once commence to make a loud noise, you may suspect they are queenless. If you find they are queenless, and can remember the character of the sound made, then you will have the knowledge you desire—a knowledge which you can hardly attain in any other way. But it will hardly do to depend upon it as an infallible guide. A queenless colony will often give no indication of its queenlessness by any sound they make. On the other hand, a colony will sometimes make a noise that condemns it as queenless, when all the time a good laying queen is present.

3. A good reason for the silence of the books, is the difficulty of giving any reliable information. An experienced bee-keeper may tell something about the condition of a colony by watching them from the outside, and at the same time it would be hard for him to put in words just what were the

things on which he based his judgment. But it is doubtful if as much can be told about queenlessness from outside indications as you have been led to suppose. While more or less guessing may be done by watching from the outside, if you want to be sure whether a queen is present or not you must open the hive. Perhaps the chief thing that is given generally from outside appearances, is that queenless bees carry in little or no pollen. But if you will look in a hive that has had no queen laying for some time, you will generally find an unusual amount of pollen present, showing that a good deal of pollen must have been gathered. Less probably than would have been gathered with brood-rearing going on, the accumulation being rather because so little was used. If you watch the bees going in with a few loads of pollen, the loads being light, while at the same time all other colonies are carrying in big loads, you may suspect queenlessness, which suspicion will be strengthened by a general air of listlessness on the part of the bees; but, as before said, if you want to know for sure, you must look inside.

Encyclopedia for Beeswax.—Some time ago we offered a splendid work of eight large volumes, called "The New Standard American Encyclopedia," having nearly 4,000 pages, and over 300 colored maps, charts, and diagrams. Size of volume, 2 inches thick, 8½ wide, and 11½ long. As per that offer, last publisht on page 186, the eight volumes were offered by freight for only $19 cash. We can furnish a set or two at that price, bound in half morroco,; or will exchange a set for 75 pounds of yellow beeswax delivered at our office. You would be more than satisfied with the Encyclopedia, and a set of such books ought to be in every family for reference.

The Horse—How to Break and Handle.—This is a pamphlet of 32 pages, giving complete instructions for breaking and educating colts, teaching horses to drive, and for use under the saddle, together with many instructions which have never before been publisht, and which are the result of the author's experience covering a period of 20 years. By Prof. Wm. Mullen, with whom the editor of the Bee Journal is personally acquainted. Price, postpaid, 20 cents; or given as a premium for sending us one new subscriber to the Bee Journal for the rest of the year at 50 cents.

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

The Alsike Clover Leaflet consists of 2 pages, with illustrations, showing the value of Alsike clover, and telling how to grow it. This Leaflet is just the thing to hand to every farmer in your neighborhood. Send to the Bee Journal office for a quantity of them, and see that they are distributed where they will do the most good. Prices, postpaid, are as follows: 50 for 20 cents; 100 for 35 cents; or 200 for 60 cents.

Langstroth on the Honey-Bee, revised by The Dadants, is a standard, reliable and thoroughly complete work on bee-culture. It contains 520 pages, and is bound elegantly. Every reader of the American Bee Journal should have a copy of this book, as it answers hundreds of questions that arise about bees. We mail it for $1.25, or club it with the Bee Journal for a year—both together for only $2.00.

Back Numbers Since Jan. 1.—We are able to supply complete sets of the Bee Journal since Jan. 1, 1897, to any who may desire, at two cents per copy. There are a number of new readers who perhaps would like to get some of the first numbers of this year, to complete their volume for 1897. We shall be glad to furnish them as long as they last, at two cents each.

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1 copy each "Preparation of Honey for the Market" (10c.) and Doolittle's "Hive I Use" (5c.)	15c.
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We make the above offers only to those who are now subscribers; in other words, no one sending in his own 25 cents as a new subscriber can also claim a choice of the above list.

The Names and Addresses of all your bee-friends, who are not now taking the Bee Journal, are wanted at this office. Send them in, please, when sample copies will be mailed to them. Then you can secure their subscriptions, and earn some of the premiums we are offering. The next few months will be just the time to easily get new subscribers. Try it earnestly, at least.

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offers on this page.

☞ See "Bee-Keeper's Guide" offer on page 624.

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Editorial Comments.

Wintering Bees is a topic that has been up for discussion in nearly every convention of bee-keepers ever held. To those in northern climes it becomes an interesting question along about this time, or a little later, every year. Mr. C. P. Dadant, in his article this week, gives some conclusions drawn from many years of actual and extensive experience. Anything from the pens of the Dadants is always worth reading. Now, that's not saying that nobody else's writings are valueless, for such would not be true. There are many excellent and practical correspondents among bee-keepers, but the Dadants are found among those at the top of the list. And there's still room for more at the top.

◆

An Experience with Commission Men.—It seems from the following, taken from the Michigan Farmer, that honey shippers are not the only class that suffer from a certain class of commission parasites:

> A Berrien county farmer is reported to have shipt 32 cases of strawberries to a Cleveland, Ohio, commission house. The day the strawberries arrived the wholesale price was quoted at 60 cents per case. The grower received from the firm a check for $1.38 as the net proceeds of the shipment. We wonder why the $1.38 was sent. The firm might as well have kept it also.
>
> If there is one thing that requires looking after by our lawmakers, it is the produce commission business. The methods of many firms would do credit to a highway robber. Hotels have special laws to protect them in collecting their debts; so do laboring men who work on buildings, etc. Why should not the farmer, who is compelled to trust his property to commission dealers, have a law to protect him? The large cities are full of men who make a practice of swindling every farmer who consigns them a shipment of produce, and the consignors are powerless to protect themselves.

That's just right. There *ought* to be a stringent law that will reach the commission robbers, just the same as any other common thieves. It seems a pity that honest commission men should suffer on account of the actions of some others in their line of business. We should think the straight dealers would unite and work for a law that would wipe out the crooked fellows. It's high time that the light-fingered commission gentry are put behind iron gratings, where they won't have the chance to defraud the farmers.

◆

The Northwestern Convention—don't forget it—will be revived Nov. 10 and 11, when it is to meet here in Chicago, at the New Briggs House, northeast corner of Randolph street and Fifth avenue. We are looking forward to a rousing meeting, as it will come during the Fat Stock Show, when railroad rates will be low. We hope to see this old-time convention revived with all its former strength and usefulness to the bee-keepers of the Northwest. No doubt Dr. Miller will be here, and be ready to enter into its discussions as he did years ago, when he was its lively President. The Doctor is a trifle older now, but he's just as keen for a bee-convention as ever. Get ready to attend the meeting in November.

◆

Scripture Cake.—We found the following recipe going the rounds, and as it calls for a little honey among its ingredients, we decided to give it here—only we don't vouch for the "goodness" of the cake, even if it is founded on scripture:

> 1 cupful of butter—Judges v. 25; 3½ cupfuls of flour—I. Kings iv. 22; 2 cupfuls of sugar—Jeremiah vi. 20; 2 cupfuls of raisins—I. Samuel xxx. 12; 2 cupfuls of figs—I. Samuel xxx. 12; 1 cupful of water—Genesis xxiv. 17; 1 cupful of almonds—Genesis xliii. 11; little salt—Leviticus ii. 13; 6 eggs—Isaiah x. 14; 1 large spoonful of honey—Exodus xvi. 31; sweet spices to taste—I Kings x. 2.
>
> Follow Solomon's advice for making good boys, and you will have a good cake—Prov. xxiii. 14. Sift two teaspoonfuls of baking powder in the flour; pour boiling water on the almonds to remove the skins, seed the raisins, and chop the figs. It makes one large or two small cakes.

◆

Selling Honey.—It is one thing to produce a crop of honey and quite another thing to dispose of it profitably. This is one reason why we are glad to publish everything we can get or find on the subject of marketing. Here is what Mrs. Mate Williams had to say about the matter in a recent issue of Farm, Stock and Home:

> Try hard to make a home market for your honey. If you have produced a fine article and will present it to customers, either retailers or consumers, in attractive shape, it will be very strange if you cannot sell your crop at a better price than would be realized if sent away to some city commission man to sell. Honey-producers are often enticed by the promises of commission men to get prices that are never realized, and are thus induced to rush their product off in bulk to the care of some stranger, who may prove as irresponsible as he is untruthful. It requires more business ability to develop a home market, but once secured it will be found much more desirable, because more profitable. Dealers who have no confidence in a demand for honey by their customers are often given a different opinion by leaving a nice, attractive-looking case with them on sale. And many have been surprised by the ease with which honey is sold by offering it from house to house in their neighboring towns.

◆

The Southwestern Wisconsin Convention will be held in the G. A. R. Hall, in Boscobel, Oct. 6 and 7, 1897. One of the principal features in this convention, which is very interesting and instructive to both old and young, is the Free-for-All Question-Box and Answers. If you have anything of interest to bee-culture, take or send it. Boscobel has offered plenty of music, and board at 75 cents per day. The following is only part of the program:

> President's Address, by N. E. France.
> The Production of Comb Honey, by Thos. Evans.
> How to Succeed at Bee-Keeping, by J. W. Van Allen.
> Cellar Wintering of Bees, by M. M. Rice.
> Marketing the Honey Crop, by H. Lathrop.
> Swarming—Natural or Artificial, by F. P. White.
> Observations Through the State, by N. E. France, State Foul Brood Inspector.

The evening session will be taken up with singing and a general good time. All who are interested in bees cannot afford to miss this convention. Go, and take your friends with you.

For desired information further, write F. L. Murray, the Secretary, at Calamine, Wis., or the President, N. E. France, Platteville, Wis.

◆

A Congress of Agricultural Industries, of interest to all engaged in agriculture in any of its branches, will be held at Omaha during the Exposition period in 1898. This Congress will be composed of representative delegates from all States

Boards of Agriculture, agricultural journals, horticultural societies, dairymen's associations, live stock breeders' societies, and all other kindred organizations, and will continue in session for from two to four weeks, during which time a number of national agricultural societies also will hold their annual conventions there. The Congress will be distinctively educational along the line of advanced agriculture, and has received the hearty co-operation of Secretary Wilson of the Department of Agriculture, of the great agricultural journals, and of the most eminent representatives of all branches of the agricultural world. The foremost thinkers in all lines of agricultural work will publicly advance their ideas at this Congress, and demonstrate to the world that many of the brightest minds and men of unquestioned genius are consecrated to the work of improving the conditions of agriculture and solving its profound scientific and commercial problems.

Smoker-Fuel—Twigs and Planer-Shavings.—Editor Root, of Gleanings, has tried about everything at all possible to be used as smoker-fuel, and finally sums up his experience in this line as follows:

> For years we have been using and recommending planer-shavings for smoker-fuel. For a long period of time Mr. Bingham has recommended stovewood split up into short lengths. Mr. Hutchinson, in a recent number of his journal, says it makes a good fuel, but it burns out the smoker-cup too fast, and rather recommends planer-shavings, or fuel of that sort. At our basswood yard, having gotten nearly out of the excelsior sawdust (a fuel that is something like planer-shavings in its results), I made an attempt to piece out the fuel by breaking up, into lengths of four or five inches, dead limbs or twigs from the basswood trees. A little excelsior fuel was lighted, and the cup filled up with broken twigs. It was very evident that, while the smoke was not as dense, it was much more lasting, and, except with the very crossest colonies, it gave very satisfactory results; and I am inclined now to believe that a combination of planer-shavings and soft, dry wood would be more satisfactory, generally, than either alone.

Dealing with Commission Men.—There are two sides to this question—the dealer's and the shipper's. This time we want to "stir up" the latter. The thing that occasioned this editorial, was the complaint that we recently received from a bee-keeper who shipt about 40 pounds of comb honey to a Cleveland commission firm.

After waiting a month or so, and hearing nothing, the shipper wrote us, desiring to know whether or not that particular firm were all right. We immediately informed the firm of the receipt of the inquiry, and intimated that we did not like to receive such letters.

They wrote us at once, enclosing two letters and the check for the honey, all of which had been sent to the shipper some time before and returned to them, with the remark stampt on the envelopes, "No such office in State named." You see, the honey shipper had failed to give his correct post-office address, or gave only the freight office from which he shipt the honey.

In this case you will see how easy it was to blame the dealers for not reporting on the honey, when they had done their part promptly and to the best of their ability, even getting $12\frac{1}{2}$ cents per pound for the honey.

At least one thing can be learned from the above: *Always* give your correct and *full* address—post-office, county and State—when writing or shipping. There is altogether too much of such inexcusable carelessness lying around loose these days. And consequently quite often the "kicking" administered to the other fellow is really deserved by the kicker himself.

Marketing the Honey Crop is a kind of perennial subject among bee-keepers. Just now it is a very live one, surely. We feel that too much cannot be learned regarding it. That is the reason we are pleased to give anything and everything that may be found of value on the subject. Much of final sucess in bee-keeping depends upon how well the honey crop is sold. And it begins to look as if the producer would have to be pretty much his own salesman, if he is to realize the most possible out of his honey.

Mr. L. W. Lighty, of Adams Co., Pa., in an article written for the Country Gentleman, has this to say about his experience along the line of marketing honey:

> Don't rush your honey off to the commission merchant, unless you are sure he has sale for it, or you are prepared to sacrifice it. When you are ready to sell, write to one or more reliable (be sure they are so) commission merchants, and ask if they have an outlet for your goods; then be governed by the replies. Better still, look after your home trade.
>
> By a little push you can sell plenty of honey right to your neighbors. I took honey along this summer when I sold raspberries and strawberries, and sold as much as 60 pounds in half a day, at $16\frac{2}{3}$ cents per pound. I sold some on every trip. I advertise the fact well, that I have both comb and extracted honey for sale, and thus far I have found no difficulty in selling every season from 800 to 1,500 pounds to the home trade. I make it a rule to sell only a first-class article, and I often get more for my honey than the general run of honey in the stores is retailing for. If I have dark or mixt honey, I send it to the commission merchant and take what it brings, rather than spoil my home market.
>
> Sometimes the local merchant will sell quite a quantity for you, if you take goods in trade for the honey. I have had experience on both sides of this transaction, and it can be made a success if the merchant is a hustler and not a blockhead, as is sometimes the case. All this is, of course, some trouble and work; but by managing it as described, I realize nearly twice as much for my honey as I would if I sent it all to the city market, that is already overflooded with the product, and has to find an outlet in country towns and the country.
>
> I also find the same practice holds good with small fruit. Freight, commission and heavy competition cut up the profits. Avoid them as much as possible.

The Weekly Budget.

Mr. C. Theilmann, of Wabasha Co., Minn., writing Sept. 17, said: "We had a little frost this morning. No harm done. Bees have nearly enough for winter stores."

Mr. M. H. Mendelson, of California, is reported in Gleanings as having taken, up to the middle of July, from his 900 colonies, 50 tons of honey, with a prospect of 12 or 15 tons more from the bean-fields. A honey crop of over 100,000 pounds—nothing very small about that.

Martin Brockman—recently a commission man of Cincinnati—caused Byron Walker the loss of $70 last year. Martin is now spending a four years' term at the Ohio penitentiary—a sojourn suggested by fradulent use of the mails. So reports Gleanings. Good for Ohio. Illinois sends her thieving commission men to the State legislature. But we believe Ohio's way is the best for all concerned.

Returns from Advertising are mentioned thus by two of our advertisers:

No. 1.—"Let me say that the American Bee Journal gives good results as an advertising medium."

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No comment is required on those two testimonials that come without any solicitation. "A *hint* to the wise," etc.

Mr. G. K. Hubbard, of Riverside Co., Calif., wrote us Sept. 9, as follows:

> "I think a half crop of honey, compared with the large crop of this region two years ago, will be a fair estimate for this county. Possibly it might go three-fifths. Prices are so low that we hope the "good times coming" will help all around—honey-producers as well as wheat raisers."

Mr. Hubbard reports that his wife, who has been almost an invalid, is "considerably better." Glad to hear it.

Dr. Jesse Oren—one of the Bee Journal's earliest contributors—died Aug. 26, at Laporte City, Iowa, in his 73rd year. Dr. Oren was an extensive bee-keeper for years—he was the first to get the Italian bee into Iowa, we believe, and always felt it quite an honor. He was a great sufferer in latter years, and spent the winters in the milder clime of Florida. We remember him as an attendant at the World's Fair convention, in 1983, which was the last time we saw him. He was a great admirer of the Bee Journal, and, as before mentioned, was a frequent correspondent in its earlier volumes. Those who helpt to place bee-keeping in the United States on a permanent foundation, are rapidly joining the great majority "on the other shore." They did their work well, and deserve to be held in grateful remembrance for their noble and enduring work.

BEE-BOOKS

SENT POSTPAID BY

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Bees and Honey, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages, and 245 illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold-lettered. Price, $1.00.

Langstroth on the Honey-Bee, revised by Dadant—This classic in bee-culture, has been entirely re-written, and is fully illustrated. It treats of everything relating to bees and bee-keeping. No apiarian library is complete without this standard work by Rev. L. L. Langstroth—the Father of American Bee-Culture. It has 520 pages; bound in cloth.

Price, postpaid, $1.25.

Bee-Keepers' Guide, or Manual of the Apiary, by Prof A. J Cook, of the Michigan Agricultural College.—This book is not only instructive and helpful as a guide in bee-keeping, but is interesting and thoroughly practical and scientific. It contains a full delineation of the anatomy and physiology of bees. 460 pages; bound in cloth and fully illustrated.

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Scientific Queen-Rearing, as Practically Applied, by G. M. Doolittle.—A method by which the very best of Queen-Bees are reared in perfect accord with Nature's way. 176 pages, bound in cloth, and illustrated. Price, $1.00.

A B C of Bee-Culture, by A. I. Root.—A cyclopædia of 400 pages, describing everything pertaining to the care of the honey-bees. It contains 300 engravings. It was written especially for beginners Bound in cloth. Price, $1.25.

Advanced Bee-Culture, Its Methods and Management, by W Z. Hutchinson.—The author of this work is too well known to need further description of his book. He is a practical and entertaining writer. You should read his book. 90 pages, bound in paper, and illustrated. Price, 50 cts.

Rational Bee-Keeping, by Dr. John Dzierzon—This is a translation of his latest German book on bee-culture. It has 350 pages; bound in paper covers, $1.00

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The Hive I Use, by G. M. Doolittle. It details his management of bees, and methods of producing comb honey. Price, 5 cents.

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The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only ONE book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted, see postpaid prices given with the description of the books on this page. Following is the clubbing-list:

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4.	Bees and Honey [Cloth bound]	1.65
5.	Doolittle's Scientific Queen-Rearing	1.75
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Question-Box.

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Hives Used by the Question-Box Experts.

Query 61.—1. What description of hive have you the largest number of in your apiary?

2. Have you a preference for any other sort of hive?

3. Please give number and inside measurement of frames, if the hives you prefer are not in general use.—QUIZZER.

Dr. A. B. Mason—1. All are Langstroth.

Mrs. L. Harrison—1. 8-frame Langstroth. 2. No.

W. G. Larrabee—1. 10-frame Langstroth. 2. No.

Jas. A. Stone—1. Improved Langstroth-Simplicity. 2. No.

R. L. Taylor—1. The Heddon. 2. No. 3. 8 or 16, owing to circumstances; 4⅞x17 3/16 inches.

E. France—1. My home yard are all the standard Langstroth frames. I wish they were all the same.

P. H. Elwood—1. The Hetherington-Quinby hive. 2. No. 3. From 5 to 8, usually; and about 10x16 inches.

J. A. Green—1. A modification of the Heddon divisible brood-chamber hive, which I prefer. 3. It has 16 frames, 5¼x17⅜ inside, used in two tiers.

Emerson T. Abbott—1. Just now the "Crown Hive." 2. Yes; a modification of the Langstroth, which I call the "St. Joe." 3. 8-frame, regular Langstroth size.

Prof. A. J. Cook—1. I have used most Gallup and Langstroth. I believe Langstroth best for average person. For experts, Heddon is perhaps better, especially if made júst right.

Chas. Dadant & Son—1 and 3. 10 frames, inside measurement 10½x18 inches. The Langstroth-Quinby hanging-frame hive, with slight modifications. We have some 250 in use.

Dr. C. C. Miller—1. What I got for regular Langstroth, and didn't know any better until well started with them. Frames, 18x9 inches. 2. My latest are Dovetails, partly because I like to be in fashion.

J. E. Pond—1. I use only the Simplicity-Langstroth hive, and prefer it to any other. Root's "A B C of Bee-Culture" will give you the exact measurements, and a vast amount of other valuable information.

J. M. Hambaugh—1. I am using a hive that takes 10 frames 17⅝x9⅛, both above and below, here in California. Were I to start again in Illinois, I would use the Dadant hive. There is no wintering problem here to solve.

J. P. H. Brown—1, 2 and 3. A hive called the "People's Hive"—holds 9 frames, but can be made to take as many as you want. It takes self-spacing frames—size and shape of the Langstroth—ends of top-bars close-fitting.

C. H. Dibbern—1. My own make, 14x21¼ inches, and 7 inches deep, taking honey-cases holding forty 4¼x4¼ sections. Hives and cases can be tiered up

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to any extent. 2. I have no preference for any other hive. 3. My hive contains 10 frames, inside comb surface 5¼x20 inches; frames have closed ends.

G. M. Doolittle—1. Doolittle-Gallup. 2. Use Langstroth in out-apiary, and a few in home yard. 3. Gallup frame is 10¾x10¾ inside, and I use 9 of them. Formerly I used 12, as that was the number Gallup advised when in Iowa.

Eugene Secor—1. Nearly all of mine are 8-frame Langstroth. (The so-called dovetailed hive is practically the same thing.) 2. Having tried a good many, I have about come to the conclusion that the above are good enough for my locality and practice.

G. W. Demaree—1. I use the standard Langstroth hive, frame 17⅜x9⅛ inches. 2. I might change a little if it would not give me an odd-size frame. 3. The standard Langstroth hive frame is 17⅜x9⅛, as set down in Rev. L. L. Langstroth's old work on bees.

Rev. M. Mahin—1. I could not give a full description of the hive I use, in the space allowed in this department. The frames are 9½ inches from top to bottom, inside measure, and a little more than 11 inches from front to rear, inside measure. They are just 12 inches from front to rear, outside. I do not know that on the whole I would care to change them. They are convenient, and easily handled.

A. F. Brown—1. Dimensions of my hives are 13¾ inches wide, 15 inches long, 9½ inches deep, inside measurement, taking a frame 14¼x9⅛, top-bar 16 inches long. 2. I also have a large number of the same size hives that are only 5¾ inches deep. My preference for a section is 3⅞x5x1⅝ inches, 32 of these to a case; and my hive-body is adapted to the section, instead of the section to the hive-body dimensions. This frame also fits the standard extractors of to-day.

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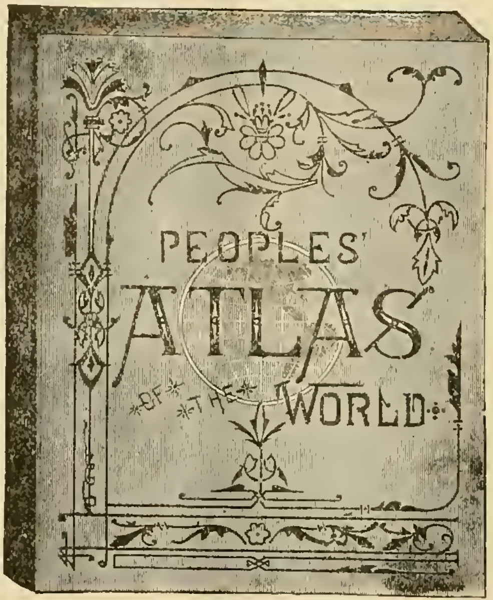

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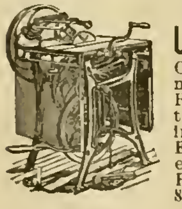

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until we appropriate it and act upon it; then it becomes in a measure our own, tho it may not be original. I find, too, that we may read the writings of a person and be deeply interested, but when we come to see the person, it adds new interest, and we immediately associate his writings with him, making it seem more as if he were speaking directly to us.

In looking over leading articles in the Bee Journal, and the names attacht I think, "Yes, I have seen them; I know them; they are my friends," and I am glad. Dr. C. C. Miller is associated in my mind with a dear uncle, because of his resemblance; while Dr. Mason reminds me of a dear brother who has gone Home, having finisht his course and kept the faith. The fact of his being a Baptist Deacon does not lessen the resemblance.

Well, I am glad I attended the convention at Buffalo, tho the demand of friends did not permit me to take it all in.

MRS. D. N. BROWN.

Erie Co., Pa., Sept. 16.

◆

Good Crop in New Jersey.

The honey crop has been a very good one in New Jersey this year—better than ever was known before.

C. C. CURRENT.

Sussex Co., N. J., Sept. 12.

◆

Bee-Keeping in Georgia.

I have fifty colonies, most of them in the 8 frame Dixie hive. I have 400 pounds of good honey taken during April and May—our best honey, and there is none better. It comes from the gallberry, which grows in low, flat places, about the branches and creeks. In this latitude bees can get flowers to work on 10 months in the year. The bee-moth is fearfully bad here. I have lost eight colonies already with the moth.

S. B. SINGLETARY.

Thomas Co., Ga., Sept. 13.

◆

Graceful Acknowledgements.

I am well satisfied with the American Bee Journal, as almost every number is a source of new ideas and general knowledge in beedom, which comes very handy to the beginner. I had some opportunity to compare the American Bee Journal to-day with what it was 10 or 12 years ago, as I had a few volumes of it for perusal, and, justly, I must declare that I find it greatly improved now.

Please accept my thanks in a general way, as well as in particular, for all those articles from which I could derive some practical use directly, as, for instance, the non-swarming device described by H. Rauchfuss, on page 230; it workt like a charm. The bees made themselves acquainted with the other hive close by, and did not go far to hunt for a new home, but selected the new house for their new home; that settled the swarming.

The contribution by W. P. Faylor, on page 370, was quite as welcome to me as were some answers of Dr. C. C. Miller, in his department. The latter is a mighty good thing to spread knowledge of the apiary, but a good many people seem to misunderstand the privilege of it, by asking the same questions over and over, again and again, instead of reading and using the advice which was

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W. B. HOUSE, M. D.,
Y Drawer 1, Detour, Mich. Z

Convention Notices.

Tennessee.—The Southern East Tennessee Bee-Keepers' Association will hold its annual session at Cooksons Creek, Friday, Oct. 1, beginning at 9 o'clock, a.m. Bee-keepers are earnestly requested to attend. The program foreshadows entertainment for the most fastidious W. J. COPELAND, Sec.
Fetzerton, Tenn.

Wisconsin.—The Southwestern Wisconsin Bee-Keepers' Association will hold its annual convention at Boscobel, October 6 and 7, 1897. All the leading apiarian subjects of the day will be thoroughly discust, and a general good time is expected. All are cordially invited to come and bring their friends.
Calamine, Wis. F. L. MURRAY, Sec.

Utah—The Utah Bee-Keepers' Association will hold their semi-annual meeting Oct. 5, at 10 a.m., in the City and County Building, Salt Lake City. A full program in the interest of the industry will be presented, and every bee-keeper in the State should be interested in the success of the industry; especially in getting our new foul brood law into operation. We now have a good law that can be put into effective force; it can be made to reach every bee-keeper and every colony of bees in the State, if necessary. Then let us be alive to the issue; let us make good use of this weapon put into our hands, as long as there is a vestige of the disease found in our own fair State. All are cordially invited.
E. S. LOVESY, Pres.
J. B. FAGG, Sec., Mill Creek, Utah.

* * *

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

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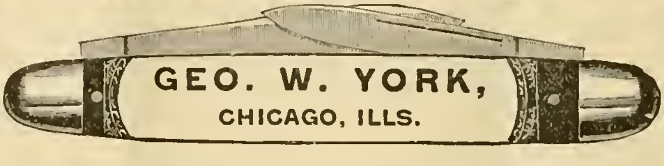

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The material entering into this celebrated knife is of the very best quality; the blades are handforged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring steel; and the finish of handle as described above. It will last a lifetime, with proper usage.

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How appropriate this knife is for a Christmas, New Year or birthday present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, a lady to a gentleman, or vice versa, a son to a mother, a husband to a wife, a brother to a sister or a gentleman to a lady—the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

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given therein to others on the very same subject where they seek information. I sometimes think of getting information on a certain subject myself, but don't like to bother about trifling things; but as soon as something of greater importance happens, I will not forget the "Question and Answer" department.

Last, but not least, I wish to offer my compliment on the acquisition of so spicy a contributor as S. A. Deacon—that South African Deacon, as somebody has styled him—who combines knowledge in bee-keeping with observing the weather in order to make rules by which to predict good and bad years; but above all, who occasionally is raking over the authorities and veterans in the art of apiculture, to show that they are not yet infallible. He is right, as too much faith in certain authorities will create laziness of thinking, and prevent the necessary progress. But such a pike in the apiarian fishpond will never tolerate stagnation. May he continue in the good work to the benefit of the American Bee Journal. P. A. SIOLI.
Sonoma Co., Calif., Aug. 20.

* * *

Good Yield from Golden-Rod.

My bees have gathered more honey per colony on golden-rod this fall than they have before since I have kept bees, and I had my first colony in 1856. The most a colony has gained during its bloom till now was 30 pounds, when one colony has gained over 60 pounds and is yet at it. I commenced to weigh the hive Sept. 3, when they gained 2½ lbs.; the 4th, 4 lbs.; 5th, 7¾; 6th, 11; 7th, 3¼; 8th, 6; 9th, 11½; 10th, 11¾; 12th, 4; 13th, rainy—none; 14th, ¾ pound; 15th, 6¼; 16th, 4 lbs.—making 76 pounds gained in 13 days. But as the honey evaporates every night they weigh 61½ lbs. more now than they did Sept. 3.

This honey from the golden-rod is the lightest colored I have ever extracted. The colony is in a double-story Alley hive; 8 frames in a story. The bees are still gathering honey from the yellow blossoms, and if the weather continues good they will get quite a few pounds more, I think. GEO. S. WHEELER.
Hillsboro Co., N. H. Sept. 17.

* * *

A Fish Stung to Death by Bees.

I had a queer thing happen in my bee-yard about a week ago. I have taken an old row-boat and made a drinking fountain out of it for my bees, by planting different kinds of water plants and lilies in it, so as to enable the bees to have something to climb on when they fell in the water. I also had six gold-fish, which have become very tame, especially one of them which was quite large.

I went to the pond to feed them some worms the other day, and was surprised to find the large fish swimming on its side. I took it out of the pond and put it in a pail of fresh water, and in about ten minutes returned to see how the fish was getting along. I found it dead, with its mouth and gills very much swollen up. Upon looking into its mouth, what should I find but a bee-sting? The fish must have eaten a bee which had fallen into the water, and the bee stung the fish, which caused the fish's mouth and gills to swell so much that the fish could not breathe, and therefore drowned. As this is the first time I ever heard of anything of this kind, I thought it might interest the Bee Journal readers.

Wm. G. Holding.

Hudson Co., N. J., Sept. 9.

A Book Recommended by Dr. Gallup.

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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Sept. 1.—Fancy white 12c.; No. 1 10 to 11c.; fancy amber. 9c.; No. 1, 7 to 8c.; fancy dark. 7 to 8c.; No 1, 7c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½c. Beeswax, 26 to 27c.

There is a little honey selling now, and with this month sales ought to increase. It is also a good time to ship comb, as wax is strong, and resists jars in transit.

Kansas City, Mo., Aug. 10.—Fancy white. 13c.; No. 1. 11 to 12c.; fancy amber, 10 to 11c.; No. 1, 9 to 10c.; fancy dark, 8 to 9c.; No. 1, 7 to 8c. Extracted, white, 5 to 5½c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 25c.

There is very little demand for honey this hot weather, but will improve with cooler weather

St. Louis, Mo., Aug. 9.—Fancy white, 12 to 12½c.; No. 1, 11 to 11½c.; fancy amber. 10 to 10½c.; No. 1, 9 to 9½c. fancy dark, 8 to 8½c.; No. 1, 5 to 7c. Extracted, white, 5 to 5¼c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 24 to 24½c.

The weather so far this season has been too warm for the free movement of honey, but with the present prices on sugar we think there should be a good demand for extracted honey at the above prices. One car of 24,000 pounds sold since our last quotation on basis of above prices. Beeswax finds ready sale at 24c. for prime, while choice stock brings a little more.

Cleveland, Ohio, Aug. 31.—Fancy white, 13c.: No. 1, 12c ; fancy amber. 8 to 9c.; fancy dark, 6 to 7c. Extracted, white, 6¼ to 7c.; amber. 5 to 5½c.

Fancy white is in demand, but very little is coming in.

Philadelphia, Pa., Sept. 3.—Fancy white, 13½ to 14c.; No 1. 12c. Extracted, white, 6c.; amber, 4 to 5c.; dark, 4c. Beeswax, 24c.

No arrivals of dark or amber honey yet to any extent. Reports from all parts show large yields of honey in the East.

Buffalo, N. Y., Sept. 1.—Fancy white, 11 to 12c.; No. 1, 9 to 10c.; fancy amber, 8 to 9 c.; No. 1, 7 to 8c.; fancy dark, 6 to 7c.; No. 1 5 6c. Extracted, white, 5 to 6c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 22 to 26c.

Honey is selling just a little better, but we advise moderate shipments till October and November, when liberal amounts can be sold.

Milwaukee, Wis., Sept. 2.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 8 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 4 to 4½c. Beeswax, 25 to 27c.

The receipts of new comb honey begin to arrive, and of very nice quality. The extracted is improving in quality. There is danger of not allowing it to cure before shipping. The demand is only moderate, bu equal to former seasons, as while fruit it plenty honey is not wanted so much. Later there must be improved demand.

New York, N. Y., Sept. 7.—Fancy white, 12 to 13c.; off grades, 10 to 11c ; buckwheat, 9 to 10c. Extracted, California, white, 5 to 5½c.; light amber, 4¾ to 5c. Southern, 50 to 55c. a gallon.

New crop of comb honey is arriving more freely, and we have a good demand. California extracted is in fairly good demand, but all other kinds are neglected. Beeswax is quiet and easier.

Albany, N. Y., Sept. 7.—Fancy white, 12 to 13c.; No. 1, 10 to 12c.; No. 1 amber, 9 to 10c.; No. 1 dark, 8 to 9c.

New crop comb honey is arriving quite freely. but as yet there is very little demand. The quality is about the same as last year. Extracted is very quiet.

Minneapolis, Minn., Sept. 1. — Fancy white, 11 to 13c.; No. 1, 10 to 11c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c.; fancy dark, 8 to 9c.; No. 1 dark, 6 to 7c. Extracted, white, 5 to 6c. Beeswax, 23 to 25c.

Only strictly fancy stock wanted in this market. Market is firm but sales are slow.

Detroit, Mich., Aug. 31—Fancy white, 11 to 12c.; No. 1 white, 10-11c. Extracted, white, 5½ to 6½c. Beeswax, 25 to 26c.

No dark honey is yet offered. There is a steady demand for fancy white. Extracted is of good quality.

San Francisco, Calif., Sept. 8. — White comb, 1-lbs., 7 to 9c ; amber comb. 4 to 6c. Extracted, white, 4 to 4⅜c.; light amber, 3¼ to 3⅜c.; dark tule, 2¾c. Beeswax, fair to choice, 2 ; to 24c.

Seldom are there larger shipments outward of this article than have been made the current week. The British ship Rajore, sailing for London, took 1,026 cases. The British ship Howth, for same destination, carried 400 cases. At this rate not many weeks would be required to clean up stocks of extracted. Shippers name 3½c. for amber and 4c. for water white. On local account better prices are realized. Comb honey is moving slowly, but as soon as we have some cool weather there will be more inquiry.

Indianapolis, Ind., Sept. 1.—Fancy white. 11 to 13c.; No 1, 9 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c. Beeswax, 25c.

In an experience of eight years I have never before seen the demand so good for comb honey as it is just now. Consumers claim that honey is better this year than usual. Extracted honey is selling slowly.

Boston, Mass., Sept 1.—Fancy white. 12 to 13c.; No. 1. 12c.; fancy amber. 10 to 11c. Extracted, white, 6¼ to 7c.; amber, 6 to 6½c Beeswax, 27c.

Honey is now being received in small lots and meeting a fair demand at above prices. Demand will naturally increase with cooler weather, and with the short Eastern crop, it should clean up in good shape.

Cincinnati, Ohio, Sept. 7. — Extracted, white, 5 to 6c.; amber. 4 to 5c.; dark, 3¼ to 4cc. Beeswax, 20 to 25c.

Our prices for best white comb honey ranges between 11 and 12c Have no demand for dark comb honey. Demand is good for all kinds of honey.

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Buffalo, N. Y.
Batterson & Co., 167 & 169 Scott St.

Hamilton, Ills.
Chas. Dadant & Son.

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A. B. Williams & Co., 80 & 82 Broadway.

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Wm. A. Selser, 10 Vine St.
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Westcott Com. Co., 213 Market St

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Boston, Mass.
Blake, Scott & Lee., 57 Chatham Street.

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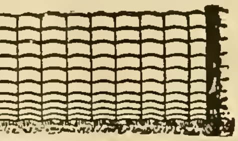

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Contributed Articles

Mr. L. Kreutzinger's Honey Harvest.

BY THE EDITOR.

Saturday, Aug. 21, 1897, was a day long to be remembered by those who accepted Mr. L. Kreutzinger's kindly invitation to be at his apiary to witness taking off the thousands of pounds of comb honey that his industrious bees had stored from the mass of sweet clover that blossoms for weeks all around his apiary, located within the city limits of Chicago, tho six miles from the court house.

Witnessing the "Honey Harvest" at the Apiary of Mr. L. Kreutzinger, August 21, 1897.

Dr. Peiro was there, of course, for he doesn't miss a chance to have a lively time if he can help it. Mr. Kreutzinger had sent out nearly 200 invitations to his friends, and the jovial Doctor was among them.

Perhaps it will be just as well to let the Doctor give his version of the mellifluous affair, which is as follows:

That honey harvest of Mr. L. Kreutzluger was indeed a novelty in this industrial world. Mr. K. evinced an enterprising spirit only equaled by his delicate considerations for the uninitiated in bee-lore, whom he had invited and protected. The apiary of over 100 colonies was comfortably located in the very midst of an extensive field of sweet clover, in which the bees had evidently revelled, if the fact may be judged from the overflowing hives under his extensive bee-sheds. The yield cannot be far from 5,000 pounds of as luscious nectar as ever appeased the wrath of the Athenian gods.

Our advent to this field was heartily welcomed by the genial host, but as much cannot be said of his proteges. They had evidently encountered treatment before our coming, seriously tending to excite their Italian temper, and were, therefore, indiscriminate in their pointed attention. The several dozen ladies—guests for the occasion—gladly sought the shelter so thoughtfully provided for them, and the men who accompanied them felt in duty bound to also remain under cover—for the ladies' protection, of course!

Editor York was there with a fairy escort (Miss Godfrey and Miss Butts) from his office, and like the discreet man that he is, braved the dangers from bee-insertions under the netting.

Mr. Hammersmark wielded the smoker, and proved a general utility man under most trying circumstances. He became quite earnest after a few stings, denounced their impertinence, relegating them where the heat is hotter and the smoke more sulphurous than that of his trusty Corneil.

Mr. K. would have felt that full honor had not been paid his nationality had not a band—music—graced the occasion. Their coming was the signal for a general bee-attack—front, flank and rear. They seemed especially anxious to reach the big trombone. The frantic waving of his red bandana 'kerchief only intensified their investigating propensities, and when they espied a large, shiny head, with no hair to hinder, they swarmed on the devoted spot, not deterred by the ejaculations, "Ach!" "Himmell!" and other choice Germanic phrases. Presently they recognized the man of the big fiddle—and the way he was made to dance, outdid a plantation darkey. By a sudden "scoot" under netting, they avoided further interview, but their subsequent playing had an air of vindictiveness that portended danger.

On the whole, the occasion was unique and interesting. The group having been effectively photographed, we bade adieu to Herr Kreutzinger, and a hundred souls, more or less, with one accord extend to him and his genial frau, their choicest benizons. Dr Peiro.

It is hardly necessary for us to add more to the foregoing. So far as we know, it was the first case of the kind to be put on record. It was all written up for the Chicago daily newspapers, and created quite a deal of interest.

All such exhibitions help to familiarize the people with honey. Mr. Kreutzinger sold a number of cases of the beautiful comb honey to visitors. And they seemed glad to get it, too.

Mr. Kreutzinger is perhaps the largest bee-keeper in this (Cook) county. He contemplates establishing another apiary next season, several miles away from the present one. He also has an apiary in Pasadena, Calif., in the care of a bee-keeper employed to look after them.

Mr. Kreutzinger is certainly deserving of much success in his various apiarian undertakings.

⁂

A Self-Hiving or Non-Swarming Hive.

BY A. DUNCAN.

The lack of an infallible plan to prevent swarming and robbing of colonies has ever been the great bar to perfection in bee-culture. The subject has engaged the exercise of the best minds, and has been the objective of the inventive genius of those interested in this most fascinating and profitable occupation. The difficulties have seemed to be insurmountable, and the writer has frequently, in his efforts to solve the problem, given up in despair, only to again and again take up the work in the apparently vain hope of finally stumbling upon the secret which, like a will-o'-the-wisp, seemed so enticing, yet elusive. After years of experimenting I believe I can confidently claim to have solved the problem, and have overcome the objections which attacht to all previous plans. My patent, which has been recently granted me, covers my "self-hiver or non-swarming hive."

This hive is a double one, twice the size of an S-frame, and consists of a brood-chamber and a reserve chamber. The two apartments are separated by a partition, in which is a perforated slide with a wire tube vent leading from the brood-chamber to the reserve chamber, through which the queen passes in her efforts to escape with the swarm. Her escape is prevented by a perforated metal strip across the opening in the front of the hive, the aperture being so gauged as to permit the egress and ingress of the swarm, but not the queen. It is seldom that a queen will be found small enough to pass through with the swarm; this difficulty is overcome by destroying the under-size queen.

At swarming-time the opening in the front of the brood-chamber is closed by a solid block to divert the bees through the reserve chamber. This block is removed after the swarm issues.

Thorough experiments with this hive have proven it a perfectly practical apparatus, and one which I feel confident will mark a distinct era of progress in bee-culture. I make this claim from the standpoint of a practical apiarist.

A few of the points of advantage which my hive possesses over all others, and which cover all essential features of a self-hiver and non-swarmer, are these:

1st. When they are placed upon the stand, there are no hives to be moved during the season, there being a reserve chamber for the increase.

2nd. The swarm need not be moved until the following spring.

3rd. All the queens needed can be reared previous to swarming-time, without weakening the colony or removing the old queen.

4th. By it swarming can be absolutely prevented, or the swarm hived as preferred.

5th. The reserve chamber acts perfectly as a drone-trap, and is so constructed as to prevent clogging by the drones with the usual disastrous results.

6th. The bees can invariably be induced to remove honey from cells placed in the reserve chamber, to incomplete sections, with the same activity that they display in the storing of honey during the honey flow. This is accomplisht by the removal of a slide in the side of the hive, thus permitting light to enter through a wire-screen covered aperature. As is well known, Doolittle's plan of producing comb honey—the best extant—is to hive the bees on the old stand, carrying the colony to a new stand. With my hive all of this trouble is avoided.

The great advantage of my method of self-hiving is the ease with which two colonies are created by the act of self-hiving. When the bees swarm and are hived in the reserve chamber, I leave in the perforated slide separating the chambers for two or three days, in which time over one-half of the swarm will return to the parent colony. I then remove the perforated slide and replace it with a solid slide. Thus, the swarm is hived, and two working colonies created; the solid slide being placed in position before the young queen is hatcht, otherwise the old queen would be killed.

Mr. L. Kreutzinger.

My experiments have convinced me that swarming is an unnecessary evil, involving unnecessary loss of profitable labor on the part of the bees, to say nothing of the loss of queens and swarms, and the trouble and loss of time occasioned by awaiting their pleasure.

I have two methods with this hive, by which swarming is prevented, and all losses avoided with no injury to the bees, but lack of space, as well as other considerations, prevent my going further into the subject here. There are grand possibilities along various lines in the use of this hive which I have not yet followed up to definite conclusions, but I believe I have already transgrest the limit of your patience, and will reserve further remarks for another time. If I have invented a distinct improvement in the hive line, the trade should know it, and I am glad to be able to take advantage of the columns of such a widely-circulated and able medium as the American Bee Journal through which to give the information.

Clinch Co., Ga.

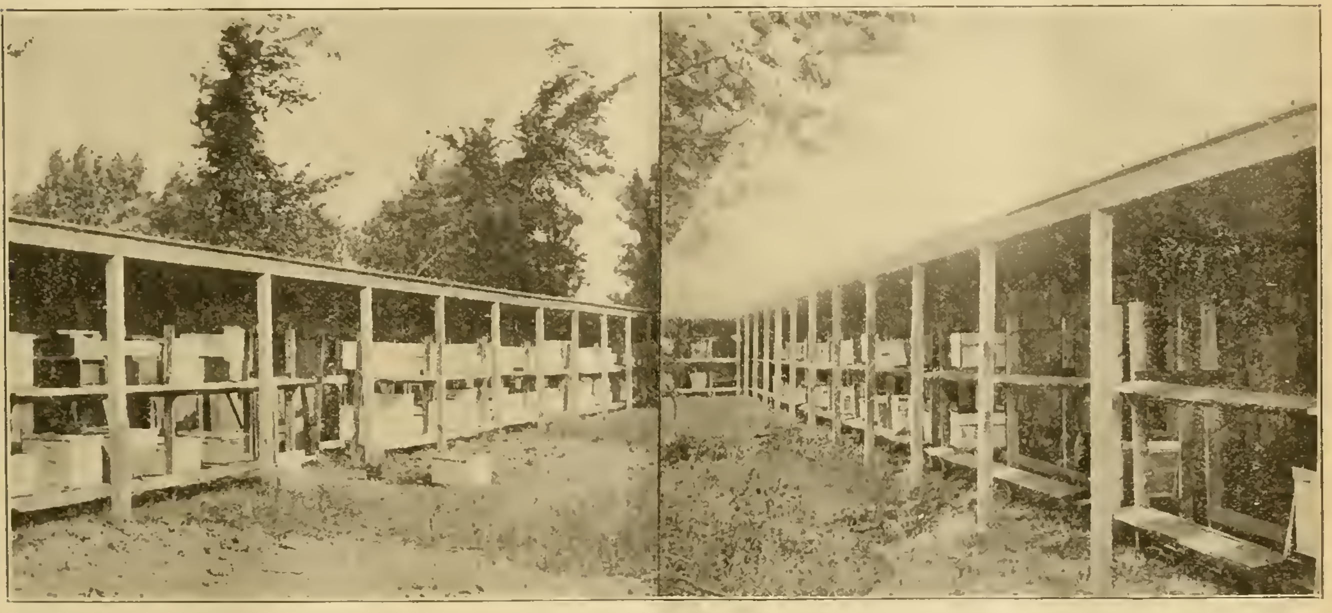
[No doubt Mr. Duncan will offer this hive in the advertising columns in good time for next season's use. So it will not be necessary for any one to send to us for his post-office address, but simply wait until his advertisement appears. If it is as good a thing as Mr. D. seems to think it is, it is well worth advertising it extensively.—EDITOR.]

⁂

Paraffine Paper Over the Sections, Etc.

BY F. L. THOMPSON.

Noticing that sections which have been covered with paraffine paper were said to be perfectly free from propolis, and even took prizes at various Fairs, I procured a number of sheets and applied them according to directions. During the early part of the season, the results were pretty fair, tho the sections were far from being free of propolis, even on the top edges. Still, the tops between the edges were perfectly fresh and bright when the sections were removed, forming a markt contrast to other sections which had been covered with a ¼ inch "layer of air."



Views of Mr. Kreutzinger's Apiary, Showing the Arrangement of Hives.

Later in the season the bees plastered propolis just as freely at the junction of the paper with the section edges as they did anywhere else. I conclude that it was the combination of paraffine paper with some other things that produced that prize honey, and that those other things were far more important. I have before this produced section honey without the aid of paraffine paper, which went into the case untoucht by the knife. They were built during the first of the flow by new swarms, in brand-new hives, in supers which perfectly compress both edges and ends of the sections, and over a honey-board.

Another objection to the paraffine paper is the fussiness it requires, with the extra paper and thin boards (I used old separators), and the difficulty of removing in the last half of the season. Every time a super replaces another, there is a lot of red tape, so to speak, to go through with. First, the newspapers and thin boards must be carefully removed and laid aside; then, still more carefully, the paraffine paper—snip, snap, tear! (confound it)—wsh-sh-sh-crack! (darn these things, anyhow!)—and then it is laid on the lower super reverst, first smoking the bees out of the way, except some refractory ones, that have to be carefully cow-catchered out of the way with the edge of the paper, then, if the wind is blowing ever so little (it usually is, just then), held there while the other paraphernalia are reacht for and spread on in succession; and you have the satisfaction of knowing that you have fixt up one super in good shape in the time that it would ordinarily take to fix two. I've had enough of it. I believe a fresh surface of burlap over every super full of sections, with three or four thicknesses, not necessarily unsoiled, above that, to keep it flat and conserve heat, would amount to about the same thing, and be much quicker handled.

By the way, I am coming to think honey-boards are a valuable aid in producing first-class comb honey. I was obliged to do without them this summer, and the percentage of fancy honey was rather small, in spite of the fact that half the hives had thick top-bars. The editor of Gleanings, speaking of thick top-bars and burr-combs, says the exception proves the rule. I would rather do without the exception, in this case, because besides *entirely* preventing burr-combs under the sections, the honey-boards very largely diminish travel-stain on the section honey, better, I think, than thick top-bars do. I am not sure of this, having been too busy to observe accurately, but that is my general impression.

EVOLUTION OF THE HONEY-BEE.

Mr. Beckwith can and will, of course, reply to the arguments on page 530, against the evolution of the honey-bee. But allow me to protest against the class of arguments employed, which, in my opinion, is not in accordance with the broad spirit of inquiry which usually characterizes the utterances of the writer of that article.

If I infer that the top of a hill was once part of the bed of a stream, on account of the numerous water-worn pebbles imbedded in the soil, Mr. Doolittle might say, "Will you attempt to prove that, because you find round stones in a stream in 1897, therefore, wherever you find round stones, there was a stream in the primeval state of the earth? This you must do if you would attempt to sustain your position." And when I begin to inform him that my conclusion is the result of the observation of the round stones in connection with several other things, such as erosion, absence of glacial action in this spot, etc., and admit that there is no absolutely direct evidence—that from the nature of the case, even if it was really so, we could not actually lay our hands on the evidence, but that, on the contrary, if my theory *were* true, it would be just what ought to be expected, that visible evidence would be wanting—I suppose he would wink, and say, "Aha! Told you so. See? You can't tell *me* anything about streams on top of a hill." Such, apparently, would be his exact attitude, if I should show that the mere classification of species shows them merging into one another—a "species" being an arbitrary division of the naturalist, not of nature; that the comparative studies of external forms, and of internal bones and soft parts, show the same result; that the embryos of all higher animals pass through successive stages, in an ascending scale of complexity, in which they are indistinguishable from those of lower animals; that rudimentary and useless organs frequently exist; that the geographical distribution of species in ocean archipelagoes is exactly that which geology shows would be necessary if evolution were true; that the succession of species in time, as shown by geology, is equally in accordance with the requirements of evolution; and innumerable minor classes of phenomena, all illustrated and proved by such a wealth of actual happenings that, as has been well said, if evolution did not occur, the Creator has taken infinite pains to delude man into the belief that it did; and that every explanation hitherto offered by non-evolutionists, of the coincidence of those seven great proofs, is not only intangible, but extremely misty.

Mr. Doolittle simply shakes his head, and says, "Will you attempt to prove that, because bees can find their hive when moved five feet from where it stood an hour before, in the year 1897, that they could not find their hive when moved one foot away 6,000 years ago? This you must do if you would attempt to sustain your position. Something tangible, please." And when I remind him that by the nature of the case, if evolution *is* true, that we cannot miraculously transport our eyes to a point several thousand years back in time, and then back to the present time again to tell what they saw, but, on the contrary, if evolution is true, it is just what is to be expected that we cannot do any such thing. Mr. Doolittle remains immovable, and I can imagine him saying to himself, "That's just the reason I put the argument in that way." It is strange he does not see how, by this method of defense, he opens branches innumerable along the line of the defenses of revelation, inspiration, and miracles, to all who may choose to enter and overthrow his belief on those subjects also. Evidence, it seems, ceases to be tangible as soon as it depends on the combination of two or more mutually corroborating sets of circumstances. It should be one and indivisible, he claims. Any other kind has no force whatever.

And then, why *six* thousand years? Evolution or no evolution, we know by the direct evidence of our senses, combined with the coldest logical deductions, that animal life has existed many millions of years, and that bees came into existence in a former geological period. What bearing, then, has a limitation of just six thousand years on this question, unless, indeed, we follow the opinion of the monks of the middle ages, in considering fossils the work of the devil? Are geology and palæontology to be thought into nothingness? There is no "must" about it, in the form in which Mr. Doolittle puts the case. But there is another "must," and it is this: The time must be left indefinite and long. The fact that Mr. Doolittle implies that if there is a permanent evolution there must be a perceptible difference in *one year*, confirms the inference that ignorance is chiefly responsible for his Podsnappian attitude, since in matters on which he is an authority he does not adopt that spirit. Apparently some otherwise fair-minded people make it a religious duty to remain ignorant on this subject. But while we admire singleness of purpose, they cannot expect us to authorize bigotry. It has been well said, that the religion of them that put aside truth is in a bad way. *They* are the ones who attempt to stand in "God's shoes," by saying he *must* have done so and thus. If God is anything, God is truth, and the reasoning, truth-searching spirit is the highest form of religion. The burden of proof lies on those who assert that the apparent explanation of facts is not the true one.

Every one of Mr. Doolittle's questions, with the modifications pointed out above, is answered in the affirmative by the study of evolution as a whole. The tangible work of generations of scientists, the ground gone over again and again, accepted by the overwhelming majority of those whose opinion on this subject is alone authoritative, and easily accessible to all, is not so easily disposed of by a trick of special pleading.

Mr. Editor, you might as well give up trying to keep evolution out of this journal, if such things are admitted. If a matter is discust at all, it ought to be discust rightly. Moreover, evolution pertains to the natural history of the bee, and is necessarily assumed whenever we speak of the mutual influence of flowers and insects. Montrose Co., Colo.

[We never wish to discourage in this journal a discussion of any kind that gives evidence of being of any practical value to bee-keepers. But just how a long lingo of longer words on evolution of the bee, or any other animal, in the Bee Journal, would be of advantage to anybody, is—well, we must confess that our noddle is too thick to understand. Better leave that to publications specially devoted to the discussion of scientific and philosophical problems.—EDITOR.]

Bee-Paralysis Caused by Unwholesome Food.

BY L. B. SMITH.

I notice in a recent number of the American Bee Journal, that Dr. Gallup, of California, seems to think that bee-paralysis is an inherited disease. In this I cannot agree with the grand old writer, altho I have had some evidence that pointed that way. But after having had seven years' experience with bee-paralysis, I am sure it is caused from unwholesome food, and is not an inherited disease, as the Doctor seems to think. Still, I am open to conviction, and if he or any one else can bring up sufficient evidence that it is a contagious disease, like foul brood, I am willing to be convinced. But until better evidence is brought forward, I shall hold my present views.

I will now try to bring up the evidence to establish my theory, of unwholesome food being the cause of this disease. I have been a practical bee-keeper for 18 or 20 years (on a small scale), and never saw a case of this disease until I came to this county (Lampasas), about seven years ago, and never saw honey sour in the hive, or any of the so-called "honey-dew," until I came to this county; and every year that we have a "honey-dew" crop, we have plenty of soured honey, and paralysis is sure to make its appearance. I have watcht this closely for the past seven years, and bees always have paralysis when their stores are mostly composed of this honey-dew.

To further prove that it is caused from unwholesome food, this year has been a year noted for the scarcity of honey-dew in this locality, and I have not seen a sick bee this summer. Notwithstanding bees have been doing nothing for the past six weeks on account of the drouth, we have had a good time for this disease to develop, but I have not seen any trace of it among my 70 colonies. But some 10 miles away bees have been gathering the so-called "honey-dew," during most of this hot, dry weather, and the consequence is, those bees have their hives filled with "honey-dew," and it is soured, and is bursting the cappings from the cells, and the bees are dying with paralysis by the thousands. Is this not evidence enough within itself? I think it is.

But to still further prove my position, I have taken all the honey from bees suffering from this disease, and fed them sugar syrup, or good, thick well-ripened honey, and never failed to cure them when they were not gathering any of the "honey-dew" stuff. If this is a disease (paralysis, I mean) like foul brood, and contagious, as some seem to think, why is it that bees will get well without any doctoring when they are fed on good, wholesome food?

To still further show that it *is* the food, and not a disease, I have sent many queens to friends where I came from (the northern part of this State), and sent queens, too, whose bees showed that they were affected with paralysis. (The parties to whom I sent the queens knew, of course, that my bees were affected.) Not one queen has developt the disease in their new home. Mind you, the place to which these queens were sent is a prairie country, and bees never gather any honey-dew there.

I would be pleased to hear from others that live in localities where they never have any honey-dew, or other unwholesome food, such as decayed melons, cider, etc.

Now, I have tried to give the facts just as they exist. I have no ax to grind, and am not interested in the sale of bees or queens; I am only a farmer, and a bee-keeper in a small way. Lampasas Co., Tex., Aug. 20.

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No. 2.—Establishing a Standard for Queens.

BY DR. E. GALLUP.

As I am a poor hand at remembering dates, I will try and get facts and let the dates take care of themselves.

A number of years ago it was the fashion to partition off a small room in the garret of the house and put in a colony of bees, and take out honey when we could get it. Sometimes they would live there for years and become very numerous.

Again, we often used to see accounts of large colonies of bees found in caves, etc. The argument against such tremendous colonies was that all the bees came from one queen, and the bees were short-lived in the working season, consequently there could be no such large colonies. Now, I am inclined to think there is a grain of truth in those statements concerning the large, powerful colonies, etc.

When I lived in Wisconsin a neighbor had a powerful colony in a small house built purposely. They had been kept there for a number of years, consequently had superseded their queen no one knows how many times. They became so numerous and strong in numbers that they became a nuisance in the neighborhood, in robbing the neighbor's bees. Whenever there was a scarcity of forage, they would go in a body and clean out an ordinary colony in short order. I was employed to clean them out of the house and destroy them, and found a good-sized barrel of bees. The colony that I saw in Decorah, Iowa, a few years after that, had been in a large box for years; also a colony that I took out of a hollow basswood log for a Mr. Drake, that had been there a number of years—the log was about 18 inches in the clear, and six or seven feet long, and we took out bees enough to fill four Langstroth 10-frame hives, all they would hold. Now, mind, those were black bees, with the exception of the Decorah colony which were hybrids, and the largest honey-bees I ever saw. Those black colonies were large bees.

Then, colonies in my large hives, that I built in Iowa the first and second seasons did not swarm, and the third season they were the first colonies to swarm, and the second season they had superseded their queens. When they sent out swarms they were so large that if they had been grain, they could not all have been put into a bushel basket at once. Of course, the queens were very prolific, but this led me to studying, and I came to the conclusion that the workers must be longer-lived than ordinary bees.

Adam Grimm and myself had a long and interesting talk on that question at the Cincinnati convention years ago. We did not disagree at all on the subject. I helpt him to a sale of $1,000 worth of bees to go to Provo, Utah. When we parted, and shook hands, he said; "Next June I shall send you a queen that is a queen," and he did. That queen lived to be six years old, and kept up her vigor until into June, when she was superseded, and soon after died. Her progeny were large and long-lived, and great red-clover honey-gatherers.

I introduced a queen from J. W. Sharp, of Wisconsin—one of your light ones, and light-colored workers—to the adhering bees and hatching brood from my Grimm colony, six Gallup combs, and set them on the opposite side of the house from my other bees, so that none of the young bees from other colonies would get in with them. The Sharp queen was introduced about May 20. On the first week in November, before putting the bees into the cellar, they had a fine flight, and the Grimm bees showed up quite numerous in that colony. They must have been at least five months old. On putting them out in the following spring, none of them showed up alive.

The following June, after receiving the Grimm queen, I received one from Dr. Hamlin, of Tennessee, and she lived to be five years old, and kept up her vigor until into June the fifth season. She produced lighter colored bees than the Grimm colony, but not quite so good honey-gatherers, and perceptibly smaller, still they were good queens.

Now, please recall the fact that Mr. Grimm went to Italy and selected his own queens before they had begun to rearing queens in small nuclei boxes, under unnatural conditions, as many of them do now. Consequently his queens were all reared under the swarming impulse, and he selected young queens from old colonies, where the old queen had led out a swarm. He succeeded in bringing, and safely introducing, 43 or 45 out of 50 started with, and not believing in the small-box theory, or unnatural theory of rearing queens, he kept up a good strain of bees.

As I get farther along, you can begin to see what I am driving at. There will be plenty of time for any of you to kick after I get through. Orange Co., Calif.

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How to Sell Honey Near Home at Good Prices.

BY FRED H. LOUCKS.

I am more and more imprest as to the necessity of disposing of our honey near home as the best and surest way of maintaining prices, and the good of all concerned. I am sure that nine-tenths of all the bee-keepers could get more money out of their honey if only they would drum up a home trade instead of shipping to a congested city, saying nothing of dishonest commission merchants.

My comb honey is put into three grades, according to the following rules: No. 1 white—straight, clean, nicely capt and filled boxes. retail selling price, 14 cents; in large lots, not less than 100 pounds, 12½ cents. No. 2, slightly colored, corners not filled or capt, and small imperfections of the comb, retails at 12½ cents. No. 3, dark, crooked, half filled or half capt, retail price, 10 cents. I have private customers enough to take all of grades 2 and 3 at my house.

Now crate No. 1 in nice, clean crates, with paper under each layer of sections, so there can be no dripping of honey inside, or out of the crate. Drum the grocery trade first, and if you strike a man who will take 200 pounds, or contract for 100 or 200 pounds, sell to him, allowing a discount, which you can afford to do on an order of that size. I usually allow 1½ cents per pound on such size lots for cash. All other lines of trade give discounts to heavy buyers, why should not the honey-trade? If you succeed in getting an order from one of the best grocers, then go to his competitor and tell him Mr. So-and-So has bought 200 pounds of honey of you at 12½ cents cash, talking to him as a drummer should, and the chances are that you will get a duplicate order from him, as he will furnish his customers the same article at the same price. If you cannot get sales started in this way, leave crates with two or three reliable grocers, seeing that they keep them in a prominent place, where people entering the stores will be sure to see it, and you will soon get a trade started.

As to the lower grades, if you have not a market already establisht for them, I believe the best way is to peddle them the first year, for these are the grades that sell the most readily to the country people. Load 50 pounds each of Nos. 2 and 3, also one case of No. 1, and as much extracted honey on your road-wagon and start out early in the morning through a section where good, thrifty farmers live, and you will not be disappointed when night comes. These peddling trips will advertise your honey more than any other way I know of, and people will come year after year to your house to get these grades of honey, expecting to get a dollar's worth of 10 or 12½ cent comb, and the same with the extracted.

To my mind most bee-keepers should produce both comb and extracted honey. I usually have rather more extracted than comb. That which is not sold direct to the consumer in bulk at 10 cents per pound is put up in Mason's improved fruit-cans, pints in size, and nicely labeled and crated in the same boxes the cans came in from the manufacturer. These cases hold one dozen, and I sell them to the grocers at $2.40 per dozen in small lots, and give a discount on large orders. At $2.40 per dozen the honey nets the producer nearly or quite 10 cents if the cans were bought right.

In conclusion I would say, produce a fancy article, put it on the market in a neat, tasty package, so that it will be taking to the eye; then push it, advertise it, let people know you have honey to sell, impress them that your honey is fine—that they can depend upon its purity and quality every time, and make it your "legal tender" whenever possible. What is most essential is brains, energy and push, the very same elements that make other lines of business successful. These put into your home market will produce results you never dreamed of.—Review.

The Horse—How to Break and Handle.—This is a pamphlet of 32 pages, giving complete instructions for breaking and educating colts, teaching horses to drive, and for use under the saddle, together with many instructions which have never before been publisht, and which are the result of the author's experience covering a period of 20 years. By Prof. Wm. Mullen, with whom the editor of the Bee Journal is personally acquainted. Price, postpaid, 20 cents; or given as a premium for sending us one new subscriber to the Bee Journal for the rest of the year at 50 cents.

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A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

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Langstroth on the Honey-Bee, revised by The Dadants, is a standard, reliable and thoroughly complete work on bee-culture. It contains 520 pages, and is bound elegantly. Every reader of the American Bee Journal should have a copy of this book, as it answers hundreds of questions that arise about bees. We mail it for $1.25, or club it with the Bee Journal for a year—both together for only $2.00.

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The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

Questions AND Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Carrying Out the Larvæ.

Why do bees cut their young out of cells and bring them out on the alighting-board? Is this what is termed "foul brood?" I notice that this is the case with some of my colonies. They cut or gnaw the young bees out of the cells and carry them out on the alighting-board during the night; or at least I never see any of them only early in the morning and during the day. They remove them from the alighting-board, carrying them as far as possible. TEXAS.

ANSWER.—In foul brood the young bees are not carried out, but the larva dies in the cell and rots while in the soft state. The young that your bees are carrying out are probably young that are disabled by the work of the wax-worm, which has gnawed away the cappings and injured the young bees more or less.

Giving Eggs or Larvæ for Queen-Rearing.

When is a colony ready to take eggs or larvæ for queen-rearing? SUBSCRIBER.

ANSWER.—That may refer to the time of year, or it may refer to the condition of the colony. The best time in the year is when bees are gathering plentifully and weather favorable for building up. No better time than the usual swarming-time, but later may be just as good if the honey-flow continues. With favorable weather, feeding may fairly well take the place of the natural honey-flow.

So far as the condition of the colony is concerned, the only thing necessary is to have it strong. Then 24 hours after the removal of the queen, if all eggs and unsealed brood be taken away from the colony, it will be ready to accept and utilize eggs or larvæ that may be given.

Questions on Wintering Bees.

1. Would tarred paper tackt upon the outside of a bee-hive make a good winter protection for the bees from the cold?

2. Would the vapor in a hive thus protected condense on the inside walls of the hive?

3. Would it be a good plan to have a board raised a little from the frames of the brood-chamber come between those frames and the carpet or chaff cushion above them?

4. When boards are used, is there any advantage in covering the lower sides of them with cloth?

When I have seen your name from time to time in the bee-papers coupled with the statement that you graduated from the Michigan University, I have queried whether you were in that institution from 1853 to 1855. I distinctly remember a student by the name of Miller, who was there between those dates, or at the time when I myself was a student at the University. W. H. L.

ANSWERS.—1. It would probably be difficult to use tarred paper in the way you propose, and have it a very effective protection. If nailed close to the sides of the hive, it would make very little difference in its warmth, and it would be hard to nail it on in such a way as to leave a space between the paper and the hive without leaving cracks so large that the air would hardly pass through. Still, this latter might be done. Strips of wood might be tackt on the hive, and on these strips the tarred paper nailed, leaving a space of one to three inches between the paper and the hive. If so managed that everything was close, the paper would be about as good as an additional wall of wood.

2. Probably it would to a greater or lesser extent, but to a less degree than without any protection.

3. Hardly. That would make an air space over the brood-frames, and the tighter down the packing comes the better, only it is well to let the bees have just enough room to cross over from one frame to another. That is, the board would hardly make it any warmer, altho a thin board, say ¼ or ⅜ thick, coming close down and then covered with packing might be just as well as without any board. But many use nothing but a single board cover over the brood-nest, altho it seems the additional advantage of having some packing, or at least to have the board cover double so as to have a dead-air space enclosed, would counterbalance the additional expense.

4. With plenty of packing *over* the board, a thickness of cloth on the under side would make little difference, but with little or no packing over the board, the more cloth under it the better. The point is to have the covering as nearly as possible a non-conductor of heat. The moisture will not condense upon it and allow drops of water to fall upon the bees in the brood-nest.

Yes, I was in Ann Arbor between 1853 and 1855, and am always glad to hear from any one who was there. It's a grand old institution.

Bees Having a Play-Spell.

What is wrong with my bees? I have 8 small colonies in 6-frame hives. The 6 frames are in 8-inch wide hives. They stand in a row from north to south. Last Saturday (Sept. 11) it was very warm, and at noon from the fourth one in the row from the north end the bees came out almost like swarming; they flew around a little and went back again. When there were a large number in the air, the next one commenced and did the same thing. After that the next one, and when those three were all quiet again, the first one in the row on the north end began, and did the same thing. They have queens, honey, brood, empty combs, and foundation. WISCONSIN.

ANSWER.—I guess your bees were just playing. They probably had not been flying out a great deal for a few days, and that made them fly all the more. If you will notice bees during warm weather, you will generally find them having a play-spell along some time in the afternoon, when the bees too young for field-work go out to play and take exercise. When they come out for the first time in the spring, or at any time after they have been confined to the hive for a few days, the old bees as well as the young go out to play, making quite a commotion. But you're not going to winter those bees in a 6-frame hive, are you? If you do, there's some danger of their playing in the middle of the winter—that is, of their "playing out!"

How Many Colonies for This Location?

I own a farm near Emporia, Kans., 60 miles southwest of Topeka. I now have 150 acres of alfalfa, and will increase the acreage to 200. There are but few bees kept near them. I also have 24 acres of bearing apple orchard—all near creek and timber. How many colonies of bees could be kept on the farm, neighbors having considerable alfalfa, and the amount steadily increasing? OKLAHOMA.

ANSWER.—It is somewhat doubtful whether you will ever get an exact reply to your question. The amount of honey to be obtained from any given source, or from any given area, is exceedingly difficult to ascertain. Even those most experienced, having for years kept bees under circumstances favorable as they can be in the nature of the case to help decide the matter, dare not attempt to say how many bees can be supported on 100 acres of alfalfa, white clover, or any other honey-plant. When answers are attempted, they differ so widely from different persons that one is left all at sea. Those who live in the alfalfa fields seem to vary greatly in their estimates. If I am not mistaken, one reliable bee-keeper has set two or three acres of alfalfa to each colony as about the right thing, while others might say several colonies to the acre. Your safe plan is to start with a hundred colonies or so, then carefully feel your way with a larger number. Of course, it will make a big difference as to the treatment the alfalfa receives. If cut a number of times in the season, each cutting coming just before it is ready for the bees to work on it, the result will be meager compared to the result when it is allowed to continue its bloom.

Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offers on page 634.

BEEDOM BOILED DOWN.

The "Long-Idea" Hive, or the plan of giving room by adding a lot of frames horizontally instead of tiering up two or three stories high, is objected to by G. M. Doolittle. He says it is back-breaking business to reach over so many frames, but the worst thing is that after trying it for several years he couldn't make a success of wintering in such hives.—Gleanings, page 634.

Clipping to Control Mating.—L. A. Aspinwall clips a sixteenth of an inch or more from the wings of his virgin queens before mating. This makes it harder for them to fly great distances, ensuing a goodly number mated with drones from their own apiary. This year one in four of the unclipt princesses were mismated, against only one in twelve of the clipt.—Review, page 231.

Ants Storing for Winter.—The Progressive Bee-Keeper quotes Globe-Democrat as saying there is no basis for the superstition that ants store food in summer for winter use. Wonder if that isn't a case where "a little learning is a dangerous thing." Isn't it true that if the Globe-Democrat had known *all* about ants it would have known that some kinds lay up for winter? Perhaps Prof. Cook can tell us whether Solomon was off in his entomology.

The California Exchange.—Prof. Cook speaks very hopefully in Gleanings as to the prospects of the California Bee-Keepers' Exchange, while the Review hints at something like the bee-keepers being "sold out" by having the whole business thrown into the hands of one commission house. We'uns up this way will watch for the outcome with much interest, and if kind wishes will do any good, the Golden State bee-keepers will come out all right.

Travel-Stained Honey Best.—E R. Root says at their house they like well-ripened honey. Travel-stained honey won't sell, but it will eat. And that raises the question whether it would not be an act of kindness to the consumer as well as of profit to the producer, if said consumer would be educated that the whitest combs don't enclose the best flavors. A certain amount of travel-stain knocks a cent or two per pound off the price, whereas it's really better honey for eating. Worth thinking over, isn't it?

Bee-Paralysis Cured by Mixing the Bees.—Monnier's cure for bee-paralysis is strongly endorst by Earl C. Walker, in Gleanings. The theory of the cure is that in a diseased colony workers have too much sisterly affection to cast out a diseased member of their own family, but said diseased member will be promptly cast out by one not near of kin. So all that's necessary is to mix a diseased and a healthy colony together. Mr. Walker says he has tried it, and it's a sure cure. When a diseased colony swarms, he hives it in a hive from which a diseased colony has swarmed. That mixes them, so that no diseased bees are left in either place.

The New Drawn Foundation.—A number have reported very favorably as to the new drawn foundation, but Mr. Doolittle found it no more quickly accepted by the bees than ordinary foundation, nor finisht sooner, and found more fish-bone to it. Editor Root accounts for the different results by the fact that Doolittle used the foundation as the season was waning, and not liking the flat base, and having time to change it, they added wax to the base so as to shape it like the natural comb. Those bees which used it early in the rush of honey, had no time to remodel it. The conclusion is that it will be best to have the natural base, and thus not tempt the bees to increase the weight of the base. Our own experiment showed that it was no better—neither any worse—than the ordinary comb foundation.

Rules for Grading Honey.—Oh, but Hasty, in the Review, does go for the grading rules. Hear him:

"It isn't truth to grade the bulk of an ordinary crop as 'fancy.' That's not what language is for......I believe there are left in the United States Israel 7,000 men (not all bee-keepers, I fear) who cannot look upon a self-evident lie without eager plotting and planning for some one to wreck it. Let No. I be so described as '[illegible] embrace the bulk or an ordinary crop. Have as many lower grades as the brethren want, but let them be clearly and frankly named and described."

And then that unsophisticated young man goes on to say that whatever goes under the label of "fancy" should really and actually be *fancy*. Others have exprest the thought that calling the bulk of the crop "fare" was not in entire accord with strict ideas of truth, but perhaps no one has used quite so terse language in speaking out his mind. Now, who's ready to act as lawyer in defense of what Hasty attacks? Not this writer.

The Two Unions Should Unite.—Something of a discussion has been going on in Gleanings between Manager Newman and Prof. Cook. Prof. Cook thinks those who voted didn't fully understand what would be the result of their votes, and says we now have two organizations, one tied (possibly by vote of its members, but certainly by the views of its Manager) to one limited, and as it seems to him, rather unimportant line of work at the present time, while the other is ready to attack any evil that really threatens bee-keepers, and he thinks it would be wise to merge the old Union into the new. Prof. Cook is not the only member of the old Union that thinks in that way.

The Rietsche Foundation Press.—A pretty war of words between the editor of Gleanings and F. L. Thompson has been waged as to the merits of the Rietsche foundation press. Thompson thinks bee-keepers might make good wages by making their own foundation with such a press—Editor Root thinks not—convincing figures on each side. Eleven thousand in use across the water shows somebody likes them, but American bee-keepers have the advantage that they can always be sure of buying foundation of pure wax, while foundation badly adulterated is only too common in Europe, some firms even advertising different degrees of adulteration on a sliding scale of prices!

Bee-Keeping in Tunis.—In the French bee-journal, Revue Internationale, appears a report to the government of Tunis (the country from which the Punic bees came) from the well-known English bee-keeper, Thomas B. Blow, who spent some time in that country. According to Mr. Blow, Tunis is one of the finest honey countries in the world, and has the right bees. He advises that stringent measures should be taken to prevent the importation of bees from any other country, as foul brood is yet unknown in Tunis, and imported bees might introduce it. He estimates an average of 55 to 66 pounds of honey per colony. Advises beginners not to start with more than 100 colonies!

"**Melted Down Combs** have been reported quite frequently this year. This is the result of allowing dark-colored hives, or those with a small entrance, standing in the sun unshaded. I never knew combs to melt down in a white hive having an entrance clear across the front, even if it did stand in the sun, but I believe it pays to shade hives during the hottest weather, as the heat will otherwise practically drive the bees out of the supers in the middle of the hottest days. Much depends upon the location of the apiary, that is, whether it is surrounded by trees or buildings that prevent a free circulation of air. In an apple orchard where the trees are so large and the branches so long that the twigs can shake hands with one another is an ideal spot for an apiary. There is then shade both for the bees and their keeper, and nothing in the way. Where shade must be provided for each individual hive, a light board two by three in size is the most practical thing.

"Since the above was written, I visited my friend Koeppen, and in passing through his apiary, while under an apple tree, he remarkt that the bees standing in the shade of that tree had done much better than those standing out in the sun. He had several small losses from combs melting down where the hives stood in the sun, and colonies were very strong." So writes Editor Hutchinson, in the Bee-Keepers' Review.

Back Numbers Since Jan. 1.—We are able to supply complete sets of the Bee Journal since Jan. 1, 1897, to any who may desire, at two cents per copy. There are a number of new readers who perhaps would like to get some of the first numbers of this year, to complete their volume for 1897. We shall be glad to furnish them as long as they last, at two cents each.

☞ See "Bee-Keeper's Guide" offer on page 640.

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Editorial Comments.

Maryland Experiment Apiary.—Mr. C. H. Lake was appointed to take charge of an apiary at the Maryland Agricultural College and Experiment Station, eight miles from Washington, D. C., on the Baltimore & Ohio railroad. An illustration of the apiary appeared recently in Gleanings. We hope to hear of some valuable results from this new State experiment apiary.

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Sweet Clover Again Abused.—In the Orange Judd Farmer for Sept. 11, we find a short article with the heading, "Sweet Clover a Pest at the North." It is by Prof. L. H. Pammel, whom we had come to think of as a botanist and general agricultural professor that was up to the times on sweet clover, but we must confess when we read the following from his pen, were greatly surprised:

> The specimen sent by T. C. Wood, of Coffeen, Ill., is sweet clover, *Melilotus alba*, also known as Bokahra clover. This is an introduced weed, biennial and native of Europe. The claim is often made that it is a valuable forage-plant. Prof. Tracy, of the Mississippi Agricultural and Mechanical College, says:
>
> "It will make an excellent growth in the rotten 'limestone' hills which are so barren that they will sustain no other plant, but is almost of no value on the rich clay which contains little lime. It is not generally liked by animals unaccustomed to its use, but it starts into growth very easily in the spring when green forage is scarce, and if stock is turned on it at that time they very soon acquire a taste for it, and eat it through the remainder of the season."
>
> In the North this weed has become extremely abundant throughout many parts of Illinois, Wisconsin, Iowa and Minnesota. Hon. J. H. Smart, of Humboldt, Iowa, says it is one of the worst weeds in his locality. In many other portions of Iowa I have seen this weed common in streets and door-yards and along railroads. We must regard sweet clover as a weed in the North, but in the South the question is an entirely different one, where forage of all kinds is a great desideratum, but even there I must admit that it is chiefly valuable as a soil renovator. It produces long taproots, which descend very deeply into the soil. The young plants, when turned under with the roots, will leave the soil much richer in available plant food. In the wornout soil in certain portions of the South it is a great blessing. It is to the South what the red clover is to the North. L. H. PAMMEL.

Certainly the foregoing is a surprise when considered in the light of all the evidence we have publisht in these columns concerning the value of sweet clover as a forage plant. We hardly thought so usually reliable an agricultural journal as the Orange Judd Farmer would give it space in its columns.

The idea of calling sweet clover a "weed," and then admit that "stock eat it through the remainder of the season." When we were on the farm, our stock never "acquired a taste" for *weeds!*

Prof. Pammel says, "We must regard sweet clover as a weed in the North." He should have used the personal pronoun "I" instead of "we," for those who know sweet clover best don't "regard it as a weed" at all, so far as we are aware.

We would suggest that Prof. Pammel study up more on sweet clover, before again calling it a "weed" and a "pest." And we hope the Orange Judd Farmer will *now* correct the errors it has publisht about sweet clover.

LATER.—Since writing the foregoing, we noticed the following, taken from Bulletin 74, of the Ohio Experiment Station, referring to sweet clover:

> "Sweet clover was formerly included among those weeds whose destruction might be enforced under the statute. But this sweet clover, especially the white sort, is rated by many as a valuable forage-plant. In this respect, without discussing its merits, it properly takes rank with white clover and other cultivated forage-plants. A bee-keeper of the State had sown an area to white sweet clover (*Melilotus alba*) for his bees to work upon. Under the statute, as enforced at that place, the authorities, after notice, entered the premises and cut down the plants. Sweet clover, and other plants of value for cultivation, should not be included among the weeds to be destroyed. There is now the best of opportunity, as well as urgent demand, to put Ohio weed laws into adequate and permanent form. Suggestions as to plants that should be included will be given in the weed bulletin now in preparation."

Mr. A. I. Root, commenting on the above paragraph in Gleanings, said:

> "It is refreshing to know that our experiment station at least recognizes the mistake it has made; and the bee-keeper who had his sweet clover cut down on his own premises will probably get the value of his crop paid back to him, without question."

In the same article, Mr. Root has this information about

HOW TO GET RID OF SWEET CLOVER.

> In the first place, cut it down before it produces seed, the same as you would any other plant. Second, turn on stock in the spring if practicable, and put enough stock in the field so they will eat up the sweet clover before it can grow up to seed. Third, plow it under before it produces seed. Some one of the three above ways can almost always be found practicable. The principal difficulty will be in the fence-corners, where no stock is kept, or on railway ground; but as it has never yet got over into cultivated fields adjoining railroad ground and roadsides, on our premises, I cannot understand how it should do any appreciable damage in any locality, where confined to these waste places. I am continually watching for it in my travels; and just as soon as I can find a place where it is detrimental to growing crops, pasture lands, or meadows, I will gladly report.

◆

A Meddlesome Cow, and what came of her investigating turn of mind (and upturning of a bee-hive) is told by the Pittsburg Chronicle-Telegraph of July 30, 1897, in the following amusing manner, tho greatly to be regretted:

> Several members of the family of Benjamin Odell, a prosperous farmer of Verplanck's Point, are under the care of

physicians as a result of bee-stings. Mrs. Odell, her two daughters and her little son were each stung in many places about the face and head. Mrs. Odell and her daughter Alice are reported as being in a serious condition.

The trouble was brought about by a too curious cow, which, nosing around a bee-hive, tipt it over to see what it contained. The bees were not long in letting her know. From the overturned hive they sailed forth in angry swarms, and, maddened by the stings, the cow rushed wildly about the field, lowing with pain and swishing her tail at her vicious little assailants. Some other cows ranged near. The bees attackt them also, and there was more bellowing and running about.

Mr. Odell's big churn-dog, Grover, heard the rumpus, and trotted over to the field to see what it was all about. The spectacle of a dozen cows bereft of all dignity and apparently engaged in some sort of bovine round dance appealed to Grover, and he rusht in to take part in the frolic, barking joyously to let the cows know that he was in for any sort of fun they were having. He ran around among the excited cows, that paid no attention to him; then a volley of bees struck him and followed him in his yelping flight to the house.

Into the room where Mrs. Odell and her daughters were sitting the dog scurried, his pursurers swarming about him and entangling in his thick, long hair. Before the dog could be driven out of the house the bees attackt Mrs. Odell and her children, and inflicted many painful stings before they could escape from the insects.

Mr. Odell is a great fancier of bees, and last spring his stock increast so rapidly that his surplus of hives was exhausted, and he began using flour-barrels. It was one of these that the cow tipt over.

The foregoing may serve as a hint to bee-keepers never to allow the larger farm animals near the hives containing bees. It's too risky a thing to do, as is very effectively shown in the instance described above.

◆

Michigan's Foul Brood Law.—The State of Michigan has had a foul brood law on its statute books for some years. It was Prof. Cook who prepared the Bill and was instrumental in obtaining its passage. The law as it now stands reads as follows:

CHAPTER LXII.

PREVENTION OF FOUL BROOD AMONG BEES.

1881, page 125, May 11, Act 141.

SECTION 1.—The people of the State of Michigan enact: That it shall be unlawful for any person to keep in his apiary any colony of bees affected with the contagious malady known as foul brood; and it shall be the duty of every bee-keeper, as soon as he becomes aware of the existence of said disease among his bees, to forthwith destroy, or cause to be destroyed by burning or interment all colonies thus affected.

SEC. 2.—In any county in this State in which foul brood exists, or in which there are good reasons to believe it exists, it shall be lawful for any five or more actual bee-keepers of said county to set forth such fact, belief, or apprehension, in a petition addrest to the judge of probate, requiring him to appoint a competent commissioner to prevent the spread of said disease, and to eradicate the same; which petition shall be filed with and become a part of the records of the court where such application is made.

SEC. 3.—It shall be the duty of the judge of probate, on the receipt of the petition specified in Section 2 of this Act, to appoint within 10 days thereafter a well-known and competent bee-keeper of said county as a commissioner, who shall hold his office during the pleasure of said court; and a record of such order of appointment, and revocation, when revoked, shall be filed as a part of the records of said court.

SEC. 4.—It shall be the duty of said commissioner, within 10 days after his appointment as aforesaid, to file his acceptance of the same with the court from which he received his appointment.

3. Upon complaint of any three bee-keepers of said county in writing and on oath, to said commissioner, setting forth that said disease exists, or that they have reason to believe it exists within said county, designating the apiary or apiaries wherein they believe it to be, it shall become the duty of the commissioner, to whom such complaint is delivered, to proceed, without unnecessary delay, to examine the bees so designated; and if he shall become satisfied that any colony or colonies of said bees are diseased with foul brood, he shall, without further disturbance to said bees, fix some distinguishing mark upon each hive wherein exists said foul brood, and immediatly notify the person to whom said bees belong, personally or by leaving a written notice at his place of residence, if he be a resident of such county; and if such owner be a non-resident of such county, then by leaving the same with the person in charge of such bees, requiring said person, within five days, Sundays excepted, from the date of said notice, to effectually remove or destroy said hives, together with their entire contents, by burying them or by fire; but in case no foul brood is found to exist in said apiary, the persons so petitioning, or any of them, shall be liable to said commissioner for the amount of his fees for such services.

SEC. 6.—If any person neglects to destroy, or cause to be destroyed, said hives and their contents in manner as described in Section 5, after due notification, and after the time above limited, he shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punisht by a fine not to exceed $25, or by imprisonment in the county jail not more than 15 days, or both, in the discretion of the court, for the first offense; and for each additional offense he shall be liable to a fine not to exceed $100, or imprisonment in the county jail not more than 60 days, or both in the discretion of the court; and any justice of the peace of the township where said bees exist shall have jurisdiction thereof.

SEC. 7.—The commissioner shall be allowed for services, under this Act, $2 for each full day actually employed, and $1 for each half day actually employed, the account to be audited by the board of supervisors, and paid in the same manner as all other county claims; but no fees shall be allowed by the board of supervisors to such commissioner for any service under this Act unless foul brood is found to exist.

SEC. 8.—In all suits and prosecutions under this Act it shall be necessary to prove that said bees were actually diseased or infected with foul brood.

◆

Flavor and Aroma of Honey.—Mr. R. McKnight—one of the ablest and best of Canada's bee-keepers—contributed, to the Review, some time ago, a very interesting article on this subject, in reply to a criticism by Mr. Hasty, from which we take the following paragraphs:

Speaking of myself, he "declared that the ripening of honey does not increase its aroma, but rather decreases it." Yes, I made the above statement, and repeat now, that the ripening of honey, whether carried on in the hive or outside the hive, lessens its aroma. Every honey-producer knows that at no time is the aroma of honey so pronounced as when just stored. Mr. Hasty himself seems to believe this. I am at a loss to know what classes of flowers his bees collect honey from, for he says, "With few conspicuous exceptions nectars do not taste fit to eat when freshly brought in."

Honey, when freshly brought in, may and often does lack body, but at no subsequent time does it possess in the same degree the characteristic aroma of the flowers from which it is collected. It will be strong and pronounced, or mild and delicate, in proportion to the strength or mildness of the scent in the flowers that secrete it; this becomes dissipated in time if exposed; not even the wax cap of the cell will prevent its escape.

White clover has not a strong scent, neither has basswood bloom. The aroma of white clover and basswood honey has, in consequence, a scarcely perceptible aroma, while honey collected from the peppermint plant has the strong, pungent odor peculiar to that plant, and I repeat that all these are lessened in a degree by the process of curing. Mr. Hasty virtually admits this himself, but propounds the novel theory that the bees absorb or appropriate this property and restore it to the honey in a non-volatile form. Is this theory "sleepily promulgated?" Or can he furnish a reason for the faith that is in him?

He asks, "Is it not usually the case with any sample of honey that its flavor is the joint result of two flavors?" I think it is the joint result of flavor and aroma, the former manifesting itself through the sense of taste, the latter through that of smell, but the aromatic property of a plant or flower will be manifest as a part of its flavor by those who possess the sense of taste and smell; if, however, one has entirely lost the sense of smell he may still enjoy the flavor of what he eats, but it would be flavor without aroma.

When Mr. Hasty puts his nose over a cup of freshly-brewed tea, he gets its aroma; when he tastes it he gets its flavor with something of its aroma, too. If he smells a rose he gets its aroma; if he chews its petals he gets its flavor.

The Weekly Budget.

Dr. Cieselski—a European experimenter and investigator—places the temperature of a bee's body at 95° Fahr.

Mr. A. L. Boyden—one of The A. I. Root Co.'s most trusted and reliable office employees—recently made a trip through a portion of Michigan, and has described it in Gleanings in a very interesting manner.

Mr. B. S. Taylor, of California, started this year with 154 colonies, and increast to 200 colonies, besides taking 10 tons of fine extracted honey, and 6,000 sections of comb honey. Prof. Cook reports this in Gleanings, and says, "This has been a fine season in Southern California."

Mr. J. K. Elliott, of Allegheny Co., Pa., who kindly sent us the clipping about the cow and the bees, from the Pittsburg Chronicle-Telegraph (found in another column) wrote Sept. 6: "I take very much interest in reading the American Bee Journal every week, and have never failed to receive it on Friday morning."

Mr. F. Danzenbaker—of Danzenbaker hive fame—is pictured in Gleanings for Sept. 15. He is over 60 years of age, yet one would scarcely think it, to see how young he looks and acts. "Having never used tobacco in any form, nor suffered a day's illness since his eighth year," helps to account for a good deal of his present youthfulness, no doubt.

Dr. Langer, of Prague, in his investigations, as reported by the Rheinische Bienenzeitung, "shows that bee-poison is not an acid, but an alkaloid. Inflamation is not caused directly by the sting, but by impurities brought to the spot by scratching, or by infectious germs. The sting is never the cause of a septic blood-poisoning, and is not in itself sufficient to produce sudden death."

Alfred Austin, England's poet laureate, is a member of the Kent Bee-Keepers' Association—not an honorary member, but pays his membership fee like any other bee-keeper. If, as has been so poetically exprest, "Bee-keeping is the poetry of agriculture," it is just the proper caper for a poet laureate to be a member of a bee-keepers' society. Wonder why the United States has no poet laureate. Bee-keepers could furnish a good one from among their number. Eugene Secor is his everyday name.

Mr. Wm. Craig, of Michigan, reports in the August Review some quick work done by his bees the past season. He says:

"I used starters of foundation 4⅛ inches long by 1½ inches wide. I use the Heddon old-style supers, and they hold 28 sections. I put this super of sections on the hive July 3, and took it off on the 6th, with the sections all completed except the *front* row of seven sections, which was *almost* ready to seal over. The hive that I put this super on had already two supers on it; one was about ⅞ full and the other about half full. Instead of raising both supers as I usually do, I only raised the top one and put the empty one in between the upper and lower supers."

The A. I. Root Co.'s Picnic, at Euclid Beach Park, on the shore of Lake Erie, near Cleveland, Aug. 13, seems to have been a very enjoyable affair. During their heaviest business this year they employed about 180 people. The picnic was given in the interest of the busy workers who were kept going on holidays and nights. Gleanings gives the following account of the big affair:

"We made up a train of seven coaches and a baggage-car. On either side of the train was a mammoth sign, painted on canvas, with the wording, "The A. I. Root Co. Employees;" and on the pilot of the locomotive was a beautiful yellow queen-bee carved out of wood, about a yard long, with wings spread, ready to lead our big 'swarm' in its flight to pastures new. The carving was done by Mr. Karl R. Mathey, who is still in our employ. The queen was richly painted, and decorated in gold.

"Well, the picnic was a grand success in every way. Nearly every seat in the train was filled with people, the great majority of whom were those who receive their bread and butter from the A. I. Root Co.'s pay-roll. Just before the train started I had the ever-ready Kodak; and after I had taken several shots the conductor called out, 'All aboard!' and the train soon steamed into Cleveland. Arriving there we all piled into a lake steamer, and after an hour's ride we found ourselves at Euclid Beach Park. We expect to make this shop picnic an annual affair."

We perhaps ought to say that we received an urgent invitation to picnic with them, but to travel nearly 400 miles to have one day's fun was a little too much for an editor's busy life and slender pocket book.

Editor E. R. Root, after the Buffalo convention, visited among New York and Rhode Island bee-keepers for about two weeks. He had a delightful time, which he tells about in Gleanings. He saw in New York State, from a single hilltop, 5,000 acres of buckwheat fields, and was in some counties where there were between 2,000 and 3,000 colonies of bees. Think of the slathers of delicious buckwheat cakes, drowned in buckwheat honey, that they must have in that region! He visited bee-keepers with their 900 and 1,000 colonies each, producing 25 and 30 tons of honey in a season, thus almost rivalling the best honey-yielding portions of California. But he hints quite plainly that New York State is pretty much overstockt with bees and bee-keepers. So don't all pick up and go there at once.

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Advanced Bee-Culture, its Methods and Management, by W. Z. Hutchinson.—The author of this work is too well known to need further description of his book. He is a practical and entertaining writer. You should read his book. 90 pages, bound in paper, and illustrated. Price, 50 cts.

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Convention Hand-Book, for Bee-Keepers. Thomas G. Newman.—It contains the parliamentary law and rules of order for Bee-Conventions—also Constitution and By-Laws, with subjects for discussion, etc. Cloth, gold-lettered. Price, 25 cts.

Thirty Years Among the Bees, by Henry Alley.—Gives the results of over a quarter-century's experience in rearing queen-bees. Very latest work of the kind. Nearly 100 pages. Price, 50c.

Practical Hints to Bee-Kee-Keepers—by CHAS. F. MUTH. Also contains a Foul Brood Cure and How to Winter Bees. 40 p.; 10 cts.

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Apiary Register, by Thos. G. Newman.—Devotes two pages to a colony. Leather binding. Price, for 50 colonies, $1.00; for 100 colonies, $1.25.

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Bee-Pasturage a Necessity.—This book suggests what and how to plant. It is a chapter from BEES AND HONEY. Price, 10 cents.

The Hive I Use, by G. M. Doolittle. It details his management of bees, and methods of producing comb honey. Price, 5 cents.

Dr. Howard's Book on Foul Brood,—Gives the McEvoy Treatment and reviews the experiments of others. Price, 25 cts.

Silo and Silage, by Prof. A. J. Cook.—It gives the method in operation at the Michigan Agricultural College. Price, 25 cts.

Winter Problem in Bee-Keeping, by G. R. Pierce. Result of 25 years' experience. 30 cts.

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History of Bee-Associations, and Brief Report of the first 20 conventions. Price, 10 cts.

Foul Brood Treatment, by Prof. F. R. Cheshire.—Its Cause and Prevention. Price, 10 cts.

Foul Brood, by A. R. Kohnke.—Origin. Development and Cure. Price 10 cts.

Bee-Keeping for Profit, by Dr. G. L. Tinker.—Revised and enlarged. It details the author's "new system, or how to get the largest yields of comb or extracted honey." 80 p.; illustrated. 25c.

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The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only ONE book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted, see postpaid prices given with the description of the books on this page. Following is the clubbing-list:

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General Items.

Bees Did Reasonably Well.

My bees have done reasonably well this season. I expected the best fall crop of honey for years, but the last drouth we had with the hot winds dried everything up, and killed the buckwheat and all—everything that produced nectar. I have about 1,000 sections not finisht, and am at a loss to know what to do with them.
L. White.
Caldwell Co., Mo., Sept. 22.

* * *

Good Year for Honey.

It has been unusually hot and dry for the past two or three weeks—in fact, we have had no rain all fall to amount to anything. The flora is for the most part dried up. What few flowers there are, are barren as to nectar. Buckwheat would have yielded a fair crop had there been sufficient moisture. Yesterday we had a wind and sand (or dust, rather) storm, but no rain. It has turned quite cool, so there will be no chance of the bees getting much more honey for this season. But, on the whole, it has been a very good year for honey.
H. G. Quirin.
Huron Co., Ohio, Sept. 17.

* * *

Results of Past Season.

I received from 15 colonies, which I wintered successfully, 700 pounds of largely white clover honey, mixt with raspberry and red clover. From a fall flow which I will soon take off the hives, there will be about 400 more finisht sections, I think. I increast by the nucleus plan, and natural swarming, to 26 colonies, which are rousing ones. The past dry, warm weather has so enticed the queens to laying that the hives are full of sealed brood. How is that for a stock of young bees to winter? Good, isn't it? My bees are nearly all Adels.
Carson Van Blaricum.
Calhoun Co., Mich., Sept. 15.

* * *

Southern Minnesota Convention.

The Southern Minnesota Bee-Keepers' Association met in Winona, Sept. 15 and 16. We had an enjoyable time, as the State Fair was held at the same time, and the apiarian exhibits were very attractive and interesting, creating a great deal of interest. There were bees in observatory hives, and the fine display of honey, wax, bee-keepers' supplies, and all kinds of tools used by bee-keepers.

Our first day's session of the convention was called to order by Pres. John Turnbull, and after the formal opening of the meeting the reports of the Secretary and Treasurer were received, showing that the association was in good condition. In the afternoon the following program was carried out: Address by Pres. Turnbull; essay by Mrs. W. N. Berthe, on "Apiculture—Its Lights and Shadows as Viewed by a Lady Bee-Keeper;" essay by E. B. Huffman, on "The Establishment of an Apiary and Arrangement Thereof;" essay by W. J. Stahmann, on "Artificial Swarming of Bees;" essay by W. K. Bates, on "The Right Size of Sections for Bees to Finish in Good Shape;" essay by George Boynton, on "How to Increase and Control

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Dr. Geo. Lacke, Newburgh, Ind.

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46 Water St SENECA FALLS, N. Y.

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J. M. Jenkins, Wetumpka, Ala.

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330 Market St., - SAN FRANCISCO, CAL.

Swarming;" essay by Charles A. Gile, on "The Queen-Bee—Its Rearing Qualities, Introduction, Management, Longevity, and Supersedure."

At the afternoon session the election of officers was first in order, and resulted as follows: President, E. B. Huffman; Secretary, C. A. Gile, of Winona; Treasurer, Mrs. W. N. Berthe; 1st Vice-President, John Turnbull; 2nd, W. N. Bates; 3rd, W. J. Stahmann; 4th, Fred Acch; 5th, John W. Gates.

An adjournment was then taken until the next morning, and we met at 9:30 o'clock. The day was principally spent in discussions on foul brood, its treatment, and the probable chance of getting a foul brood law past by our next legislature. It was decided to hold our next annual convention at Winona, Oct. 22 and 23, 1898. After a friendly and very social and interesting meeting, we adjourned, and all went to the Exhibition Hall, where we had an enjoyable time viewing the many awards.

E. B. HUFFMAN, *Pres.*

Winona Co., Minn.

◆

Sells from House to House.

I have 30 colonies of bees, and got a nice lot of honey this year. I have sold all of my crop in the city, and will have to buy a lot to keep my customers sweet. I sell from house to house, and have many honey-eaters to keep happy.

GEORGE W. SHEARER.

Stark Co., Ohio, Sept. 20.

◆

A Very Dry Time.

We have not had a good rain since the middle of June, nor have we had enough to lay the dust in eight weeks. Everything in the vegetation line is just simply burnt up. Bees must be fed, or starve. I never saw as dry a time in this country. Peaches and winter apples are drying up and dropping; fruit-trees are dying, and many of the forest trees are dead. I hope for a better season next year. GEO. W. WILLIAMS.

Polk Co., Mo., Sept. 19.

◆

Cows Relish the Sweet Clover.

We are having a severe drouth in this part of the country. Vegetation is all dried up. The only green thing here now is the sweet clover, of which there is a good growth from last year's seed, along the public roads. It is the only feed we have for our two Jersey milch cows, and they relish it very much. So much for the sweet clover.

Our bees are done working for this season. I will send in my report soon.

JOHN S. SLEETH.

Livingston Co., Ill., Sept. 18.

◆

Hog Meat Defended.

I take issue with Dr. Peiro on the hog question, as given on page 559. I have been a hog-raiser as well as a bee-keeper. A hog, like his brother man, is largely what he eats. I admit that the lard put up by large packing companies becomes stale and unfit for food, and the bacon and hams not much better, sometimes; but a hog of good pedigree, raised on alfalfa and corn, properly cured, is very good food. Just think of it, as the cold weather comes on—the roast pork and sweet potatoes, sausage, ribs, backbone, head-cheese, and then the sweet sugar-

Cash PAID FOR **Beeswax**

For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 25 cents per pound, CASH; or 28 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly,** for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,

GEO. W. YORK & CO.
118 Michigan st., CHICAGO, ILL.

CARLOADS—

Of Bee-Hives, Sections, Shipping-Cases, Comb Foundation, and **Everything** used in the Bee-Industry.

We want the name and address of every Bee-Keeper in **America.** We supply Dealers as well as consumers. We have Dry Kiln, Improved Machinery, 40,000 feet of floor space, and all modern appliances. We make prompt shipment.

Write for Catalogs, Quotations, etc.

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ITALIAN QUEENS

By Return Mail.

Choice Tested at 65 cts. each; Untested at 50 cts. each, or $5.00 per dozen—from now to November 1st.

F. A. Crowell, Granger, Minn.

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Earn Your Christmas Money

Or Presents, by going among your friends and neighbors, and help to introduce **Whitman's Pure Teas, Spices, Baking-Powder, etc.** 25 lbs. for solid silver Chatelaine Watch and Chain; or 20 lbs. for a Mandolin or Guitar; 25 lbs. for an autoharp; 175 lbs. for a High-Grade Ladies' or Gents' Bicycle; 50 lbs. for a Decorated Dinner Set; 40 lbs for a Ladies' or Gents' Gold Watch; 20 lbs. for a Dexter Camera; 5 lbs. for a Zar Camera; 10 lbs. for a Solid Gold Ring; 8 lbs for a Set of Nut-Picks and Cracker. Only Strictly Pure Goods handled.

Freight paid on all orders accompanied by the cash. Send address on card for Catalog, Order Sheet, etc. A. H. WHITMAN & CO.,
[Dept. B] 2714 No. Western Ave.,
38A4t CHICAGO ILL.

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METAL WHEELS

in all sizes and varieties, to fit any axle. They last forever. Either direct or stagger spoke. Can't break down; can't dry out no resetting of tires. Good in dry weather as in wet weather. Send for catalog & prices. **ELECTRIC WHEEL CO., QUINCY - ILLINOIS.**

32E9 *Mention the American Bee Journal.*

For a knife that will cut a horn without crushing, because it cuts from four sides at once get

THE KEYSTONE DEHORNER

It is humane, rapid and durable. Fully warranted. HIGHEST AWARD AT WORLD'S FAIR. Descriptive circulars FREE. A. C. BROSIUS, Cochranville, Pa.

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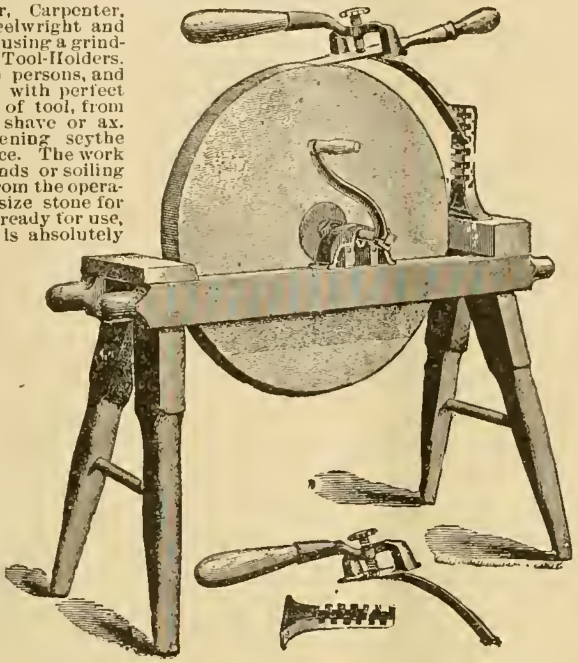
A HANDY TOOL-HOLDER!

Sent by Express, for $1.50; or with the Bee Journal one year—both for $2.00.

Every Manufacturer, Miller, Carpenter, Cabinet Maker, Machinist. Wheelwright and Quarryman, Farmer, or any one using a grindstone, should have one of these Tool-Holders. One boy can do the work of two persons, and grind much faster, easier and with perfect accuracy. Will hold any kind of tool, from the smallest chisel to a draw shave or ax. Extra attachment for sharpening scythe blades included in the above price. The work is done without wetting the hands or soiling the clothes, as the water flows from the operator. It can be attached to any size stone for hand or steam power, is always ready for use, nothing to get out of order, and is absolutely worth **100 times its cost.**

No farm is well-equipped unless it has a Tool-Holder. Pays for itself in a short time.



How to Use the Holder.

Directions.—The Tool is fastened securely in the Holder by a set-screw and can be ground to any desired bevel by inserting the arm of the Holder into a higher or lower notch of the standard. While turning the crank with the right hand, the left rests on an steadies the Holder; the Tool is moved to the right or left across the stone, or examined while grinding, as readily and in the same way as if held in the hands.

For grinding **Round - Edge Tools**, the holes in the standard are used instead of the notches.

Address, **GEORGE W. YORK & CO., CHICAGO, ILL.**

cured hams and bacon, and the snowy sweet lard!

I think that more people die for the want of hog meat than those who eat it. In the early days in California chronic diarrhea was common, and bacon was said to be a cure when doctors failed. As a remedy in consumption and bronchial troubles, it is far superior to cod liver oil. Bishop Taylor, of Africa, says, "Bacon is a tonic to the stomach." I took two treatments of Dr. Peiro's hydrogen, but helpt the matter by eating sausage and pork in the cold weather. In my youthful days I had dyspepsia, but exercise in the open air relieved the trouble, and I can eat hog with impunity. I am in favor of good living.

Ellen C. Bland.

Los Angeles Co., Calif.

* * *

Some Good Honey-Yields.

Our home apiary of 56 colonies, spring count, has to its credit an average of 333 pounds; and one taken on shares, when in horrid condition (84 colonies), has an average of 254 pounds, besides increasing to 95 and 115 colonies respectively. (I ought to say, tho, that we weigh what we bring from the hive, and what we return, so our net weights include the uncappings); weighed thus, my best colony produced over 500 pounds; my best 7, 2,871 pounds.

R. E. Davison.

San Diego Co., Calif., Sept. 4.

* * *

Big Hives Upheld—Report.

The honey crop has been good here this year. We have taken 619 pounds from 11 colonies. Our best colony, which was hived June 12, gave 121 pounds, besides filling 12 brood-frames. Our best nucleus did not swarm, but gave 103 pounds of honey. We had but 7 new swarms this year—kept all from swarming as much as possible.

We uphold Mr. Dadaot in his big hives. We are using 8, 10 and 12 frames, and have decided that 12 frames are far ahead of anything less. We will try some 16 frames next season, all in one body. The reason we like them is, the bees do not swarm as badly in them as the 8 and 10 frame hives, but when they do swarm, it takes a 12-frame hive and 72 one-pound sections to hive them in.

Next season we will buy queens in the spring and divide all of our colonies during fruit-bloom, then feed to build them up ready for the white clover when it comes.

Success to the American Bee Journal.

Savage Bros.

Sauk Co., Wis., Sept. 20.

Doctor's Hints

By Dr. PEIRO,

Central Music Hall, CHICAGO, ILL.

High Collars.—Of course, Mr. Slim, you can wear any kind of collar you wish, so far as I am concerned, but since you ask my advice I say, don't wear those high kinds that must nearly cut your ears off, that I am certain seriously interfere with the proper circulation of the blood in the brain—both its entrance and exit. Headaches and sore throats are some of the most common results from wearing those inordinately high collars—those that look as if they were cuffs worn in the wrong place. Reports in medical journals tell us that several deaths have resulted from wearing this new style of linen. It is always a safe rule to keep the neck free from

Y Z

BRO. YORK'S OWN TESTIMONY

AFTER 18 MONTHS' USE.

Chicago, July 27th, 1897.

Dear Dr. House:

My office force have fallen in love with your Yellowzones. I enclose $1.00 for as many as you mail for that amount. Success to you in your excellent work.

Very truly yours,

Geo. W. York.

P. S. Say, *I* think as much of your "Zones" as the "girls" do. They just straightened out a very severe headache I had awhile ago. Worth their weight in the yellow metal now being raved about up in Alaska.

G. W. Y.

Y Z

YELLOWZONES

FOR PAIN AND FEVER.

An honest and efficient remedy for all fevers, headaches, colds, grip, rheumatism, neuralgia, etc. And every box guaranteed—but no customer has ever yet asked for his money back.

One box, with supply of *Zonet Cathartics*, 25c; six boxes for $1.00. Most orders are for Dollar lots.

W. B. House, M. D.,
Drawer 1, Detour, Mich.

Y Z

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The RURAL CALIFORNIAN

Tells all about Bees in California.

The Yields and Price of Honey; the Pasturage and Nectar-Producing Plants; the Bee-Ranches and how they are conducted. In fact the entire field is fully covered by and expert bee-man. Besides this. the paper also tells you all about **California Agriculture and Horticulture.** $1.50 per Year; Six Months, 75 cents. Sample Copies 10 cents.

THE RURAL CALIFORNIAN,
218 N. Main St., - Los Angeles, Calif.

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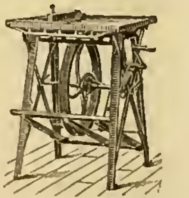
Barnes' Foot-Power Machinery.



Read what J. I. Parent, of Charlton, N. Y., says—"We cut with one of your Combined Machines, last winter 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will." Catalogue and Price-List Free.

Address, W. F. & JOHN BARNES,
No. 995 Ruby St., Rockford, Ill.

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325 DEARBORN ST.,

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A Journal that is over a quarter of a century old and is still growing must possess intrinsic merit of its own, and its field must be a valuable one.

Such is the American Poultry Journal. 50 cents a year.

Please mention Bee Journal when writing.

any kind of pressure—everything loose and comfortable around it. Anything tight is injurious.

Incense and Disenfectant.—Save your peach-stones and nut-shells for winter. Throw a handful on the fire in the evening and see how bright they blaze and how fragrant they smell. Dried apple pearings thrown in the fire or on a hot stove are a very incense of sweetness for the house, beside being an excellent disinfectant.

Damp Cellars.—Now is the time when the thoughtful house-keeper sees religiously to it that not a nook or corner of her cellar is damp or wet, because if so not only will it rot all vegetation in the cellar, but from it exhale such a pestilence into the house that it will be next to a miracle if one or more members of the family do not become victims to typhoid or malerial fevers before spring, necessitating a big doctor's bill which can just as well be avoided by care and cleanliness. As all know, damp surroundings are great encouragers of rheumatisms, colds, coughs, and other infirmities. Keep your cellar dry and whitewasht.

BEES FOR SALE.

About 90 Colonies of Italians. Any one wanting to start an apiary cannot do better than to call on Dr. E. Gallup, Santa Ana. Calif., and examine the Bees before purchasing elsewhere. Double sets of Combs in Langstroth-Simplicity Hives, and warranted a superior lot of Bees for business. Correspodeuce solicited. **Dr. E. GALLUP,**
SANTA ANA. Orange Co., CAL.
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FOR SALE.

Apiary and Small Farm in southwest Texas. Address.
Mrs. M. M. Dunnegan, Mathis, Tex.
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Choice Honey for sale Cheap
For, Prices address,
38A3 W. C. Gathright, Dona Ana, N. M.
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Queens and Queen-Rearing.—If you want to know how to have queens fertilized in upper stories while the old queen is still laying below; how you may *safely introduce* any queen, at any time of the year when bees can fly; all about the different races of bees; all about shipping queens, queen-cages, candy for queen-cages, etc.; all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know—send for Doolittle's "Scientific Queen-Rearing"—a book of over 170 pages, which is as interesting as a story. Here are some good offers of this book:

Bound in cloth, postpaid, $1.00; or clubbed with the BEE JOURNAL for one year—both for only $1.75; or given free as a premium for sending us *two* new subscribers to the BEE JOURNAL for a year at $1.00 each.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Sept. 23.—Fancy white 12c.; No. 1, 10 to 11c.; fancy amber, 8 to 9c.; No. 1, 7 to 8c.; fancy dark, 7 to 8c.; No 1, 7c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½ to 4c. Beeswax, 26 to 27c.

The volume of business is small, considering the time of year. Many people are in the city from country points, who have brought their honey with them, and find it difficult to sell at these quotations, and in many instances accept less rather than not dispose of it.

Cincinnati, Ohio, Sept. 30.—Fancy white, 11 to 13c.; No. 1, 10 to 11c.; No. 1 amber, 7 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½ to 4c. Beeswax, 20 to 25c.

Demand for all kinds of honey has been exceedingly slow during September. Perhaps because of a too liberal supply of fruit on the market.

Boston, Mass., Sept 25.—Fancy white. 13c.; No. 1, 11 to 12c.; fancy amber, 9c. Extracted, white, 6 to 6½c.; amber, 5 to 5½c. Beeswax, 27c.

Comb honey is in light receipt, particularly the fancy grades, which is mostly sought for on this market. Demand is GOOD. Beeswax is practically out of the market, the supply being light and demand good at above price.

Indianapolis, Ind., Sep. 24.—Fancy white. 11 to 13c.; No 1, 9 to 10c. Extracted, white. 5 to 6c.; amber, 4 to 5c. Beeswax, 25c.

Condition of honey market remains unchanged. Many producers have been holding back for better prices but demand is well supplied.

Detroit, Mich., Sept. 25—Fancy white, 11 to 12c.; No. 1 white, 10-11c.; fancy amber, 9 to 10c.; fancy dark, 8 to 9c. Extracted, white, 5 to 5½c.; amber, 4 to 5c. Beeswax, 25 to 26c.

The demand for honey is improving as the season advances. Supply is fully equal to the demand.

Minneapolis, Minn., Sept. 24.—Fancy white, 10 to 11½c.; fancy dark, 9 to 9¾c. Extracted, white, 4¾ to 5½c.

Market well stockt with dark honey. Fancy white clover finds good market at 10 to 11½c.—possibly a fraction more could be realized on really fancy. We would not advise shipments of dark comb or extracted at present.

Albany, N. Y., Sept. 25.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c; fancy dark, 8 to 9c.; No. 1, 7 to 8c.

Comb honey is arriving quite freely and moving off nicely at quotations.

New York, N. Y., Sept. 25.—Fancy white, 12 to 13c.; fair white, 10 to 11c; buckwheat, 8½ to 9½c. Extracted, California, white, 5 to 5½c.; light amber, 4½ to 4¾c.; white clover and basswood, 5 to 5½c.; buckwheat, 4 to 4½c.; Southern, 48 to 50c. a gallon. Beeswax is quiet at 26c.

Comb honey is now arriving in large quantities, and demand is fair for all grades, principally for fancy and No. 1 white and fancy buckwheat. Extracted California is selling well, while others are neglected, especially Southern in barrels and half barrels.

Milwaukee, Wis., Sept. 24.—Fancy white, 12 to 13c.; No. 1, 10 to 11c.; fancy amber, 8 to 10c. Extracted, white, 5 to 6c.; amber, 4 1-2 to 5c.; dark, 3 1-2 to 4 1-2c. Beeswax, 25 to 26c.

The receipts of honey are very fair, and the quality improving. The supply is not large. Demand is moderate, and the prospects good for fall trade. We are well satisfied that it pays shippers of honey to exercise much care in putting up stock in nice, clean cases and clean, well-ordered sections, and new, clean kegs and barrels for the extracted.

Cleveland, Ohio, Sept. 27.—Fancy white, 13½c.; No. 1, 13c.; fancy amber, 11c.; No. 1, 10½c. Extracted, white, 7c; amber, 6c.; dark, 5c. Beeswax, 28 to 30c.

The demand for honey is very good.

Buffalo, N. Y., Sept. 1.—Fancy white, 11 to 12c.; No. 1, 9 to 10c.; fancy amber, 8 to 9c.; No. 1, 7 to 8c.; fancy dark, 6 to 7c.; No. 1 5 6c. Extracted, white, 5 to 6c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 22 to 26c.

Honey is selling just a little better, but we advise moderate shipments till October and November, when liberal amounts can be sold.

San Francisco, Calif., Sept. 22.—White, comb, 1-lbs., 7 to 9c.; amber comb, 4 to 6c. Extracted, white, 4 to 4⅜c.; light amber, 3½ to 3¾c.; dark tule, 1¾ to 2¼c. Beeswax, fair to choice, 22 to 24c.

Prices remain at much the same low plane as has been current during the greater part of the past season, but stocks of extracted are being steadily reduced, mainly on European account. Comb honey has been dragging, but will probably meet with more custom in the near future. There is no lack of inquiry for beeswax, but the demand is mainly for export, and at figures named by the buyer.

Philadelphia, Pa., Sept. 27.—Fancy white, 13½ to 14c.; No 1, 12c.; No. 1 amber, 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 4c. Beeswax, 25c.

Honey is now moving freely, with arrivals sufficient for the demand.

St. Louis, Mo., Aug. 9.—Fancy white, 12 to 12½c.; No. 1, 11 to 11½c.; fancy amber, 10 to 10½c.; No. 1, 9 to 9½c. fancy dark, 8 to 8½c.; No. 1, 5 to 7c. Extracted, white, 5 to 5¼c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 24 to 24½c.

The weather so far this season has been too warm for the free movement of honey, but with the present prices on sugar we think there should be a good demand for extracted honey at the above prices. One car of 24,000 pounds sold since our last quotation on basis of above prices. Beeswax finds ready sale at 24c. for prime, while choice stock brings a little more.

Kansas City, Mo., Sept. 25.—Fancy white. 13c.; No. 1, 11 to 12c.; fancy amber, 10 to 11c.; No. 1, 9 to 10c.; fancy dark, 8 to 9c.; No. 1, 8c. Extracted, white, 5 to 6c.; amber, 4½ to 5c.; dark, 4c. Beeswax, 25c.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN.
120 & 122 W. Broadway.

Kansas City, Mo.
C. C. CLEMONS & Co., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Cleveland, Ohio.
A. B. WILLIAMS & Co., 80 & 82 Broadway.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.
Mr. Selser handles no honey on commission.

St. Louis, Mo.
WESTCOTT COM. Co., 213 Market St

Minneapolis, Minn.
S. H. HALL & Co.

Milwaukee, Wis.
A. V. BISHOP & Co.

Boston, Mass.
BLAKE, SCOTT & LEE, 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. MCCULLOCH & Co., 380 Broadway.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central Avs.

Bee-Keepers' Photograph.—We have now on hand a limited number of excellent photographs of prominent bee-keepers—a number of pictures on one card. The likeness of 49 of them are shown on one of the photographs, and 121 on the other. We will send them, postpaid, for 30 cts. a card, mailing from the 121 kind first; then after they are all gone, we will send the 49 kind. So those who order first will get the most "faces" for their money. Send orders to the Bee Journal office.

FREE —A Copy of— **Successful Bee-Keeping,** by W. Z. Hutchinson; and our 1897 Catalog, for 2-cent stamp, or a copy of the **Catalog for the Asking.** We make almost **Everything** used by **Bee-Keepers,** and at **Lowest Prices.** OUR

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36 Pages—50 Cents a Year.

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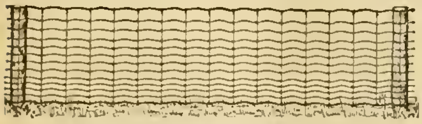

LET 'ER ROLL.

Do you know of any wire farm fence that is having constantly increasing sales, after being on the market ten years? **We** do, just one. Think about this.

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

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A Special Booklet Bargain!

For a limited time we wish to make our readers a **special offer** on booklets on Bees, Poultry, Health, etc. Upon receipt of **75 cents** we will mail any **6** of the list below: and **for $1.25** we will mail the **whole dozen**:

1. Foul Brood, by Dr. Howard	25c
2. Poultry for Market and Profit	25c
3. Turkeys for Market and Profit	25c
4. Our Poultry Doctor	30c
5. Capons and Caponizing	30c
6. Hand-Book of Health, by Dr. Foote	25c
7. Kendall's Horse-Book	25c
8. Rural Life	25c
9. Ropp's Commercial Calculator	25c
10. Foul Brood, by Kohnke	10c
11. Silo and Silage, by Prof Cook	25c
12. Bienen-Kultur, by Newman	40c

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CHICAGO, ILLS.

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Bee-Hives, Sections, Shipping-Cases—everything used by bee-keepers. Orders filled promptly. Send for catalog **MINNESOTA BEE-KEEPERS' SUPPLY MFG. CO.,** Nicollet Island, Minneapolis, Minn.

22Atf CHAS. MONDENG, Mgr.

Please mention Bee Journal when writing.

Beautiful Honey-Cases

Made by the A. I. Root Co., at their prices.

Beeswax Wanted.

M. H. HUNT, Bell Branch, Mich.

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YOUR BEESWAX!

UNTIL FURTHER NOTICE, we will allow 28 cents per pound for Good Yellow Beeswax, delivered at our office—in **exchange** for Subscription to the BEE JOURNAL, for Books, or anything that **we** offer for sale in the BEE JOURNAL. **Or, 25 cts. cash.**

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DADANT'S FOUNDATION

Shiping-Cases and Cans for Honey.

WE GUARANTEE SATISFACTION. What more can anybody do?

BEE-KEEPERS' SUPPLIES OF ALL KINDS.

LANGSTROTH ON THE HONEY-BEE, Revised.

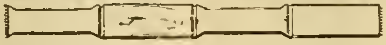
The Classic in Bee-Culture—Price, $1.25, by mail.

BEESWAX WANTED FOR NEXT SEASON'S USE.

CHAS. DADANT & SON,

Please mention the Am. Bee Journal. **HAMILTON, Hancock Co., ILL.**

4¼ SECTIONS 4¼ SECTIONS



Our business is making Sections. We are located in the basswood belt of Wisconsin; therefore the material we use cannot be better. We have made the following prices:

No. 1 Snow-White.		No. 1 Cream.	
500 for	$1.25	500 for	$1.00
1000 for	2.50	1000 for	2.00
2000 for	4.75	2000 for	3.75
3000 for	6.75	3000 for	5.25

If larger quantities are wanted, write for prices.

Price-List of Sections, Foundations, Veils, Smokers, Zinc, Etc., Sent on application.

6A35t **MARSHFIELD MFG. CO., Marshfield, Wis.**

The Bee-Keeper's Guide

This 15th and latest edition of Prof. Cook's magnificent book of 460 pages, in neat and substantial cloth binding, we propose to give away to our present subscribers, for the work of getting NEW subscribers for the American Bee Journal.

A description of the book here is quite unnecessary—it is simply the most complete scientific and practical bee-book published today. Fully illustrated, and all written in the most fascinating style. The author is also too well-known to the whole bee-world to require any introduction. No bee-keeper is fully equipped, or his library complete, without "THE BEE-KEEPER'S GUIDE."

Given For 2 New Subscribers.

The following offer is made to PRESENT subscribers only, and no premium is also given to the two new subscribers—simply the Bee Journal for one year:

Send us Two New Subscribers to the Bee Journal (with $2.00), and we will mail YOU a copy of Prof. Cook's book FREE as a premium. Prof. Cook's book alone sent for $1.25, or we club it with the Bee Journal for a year—both together for only $1.75. But surely anybody can get only 2 new subscribers to the Bee Journal for a year, and thus get the book as a premium. Let everybody try for it. Will you have one?

GEORGE W. YORK & CO., 118 Michigan St., Chicago, Ill.

Gleanings for One Whole Year, 25 Cents

Will furnish GLEANINGS one year—24 issues—to a new subscriber, and one Untested Italian Queen, during the months of September and October only, for the price of the journal alone—namely, $1.00. These Queens are catalogued at 75 cents each. By sending us $1.00 you will get the Queen, 75 cents, and the journal for only 25 cents.

If you are already a subscriber and would like to get the Queen, send us $1.00 with a new name for GLEANINGS, and we will send the Queen to you, and the journal to the new name sent.

Remember this offer is good only until Nov. 1.

The A. I. Root Company, Medina, Ohio

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37th Year. CHICAGO, ILL., OCTOBER 14, 1897. No. 41.

Contributed Articles

Figwort or Simpson Honey-Plant—How to Grow It.

BY GEO. W. WILLIAMS.

As it has been requested of me to write an article on the cultivation of figwort (carpenter's square or Simpson honey-plant), I will say that I have been experimenting with this plant for a number of years as a honey-producing plant, and as far as my experience extends it has no equal. I have been growing it side by side with the much-lauded sweet clover, and the Simpson plant is so far ahead of the sweet clover that there is no comparison between the two. I consider *one* acre of the plant worth at least *ten* of sweet clover.

In this latitude (Missouri) it begins to bloom about the middle of June, and blooms until a late, hard frost—a light frost that kills other vegetation does not affect it. The bees work on it from daylight until dark, often being heard on it in the evening until so dark that they cannot be seen.

The method of its cultivation is easy enough when you know how. I will give my manner of cultivation in this part of the country; of course, as you go north or south the time of sowing must vary with the climate:

To raise one-half acre: In the latter part of February or first of March, make and burn a *very heavy* brush-pile, say 16x20 feet. As soon as the ground is cool, dig or spade it up and hand-rake down level. Sow about two ounces of seed and lightly rake again (just as you would tobacco seed). Protect it from stock tramping over the bed. Let the plants grow until they get three to five inches high, and then having the ground well prepared, set the plants in rows four feet apart and three feet in the row. Cultivate the same as any other crop.

Or the easiest method is to leave the plants grow in the *seed*-bed one year, and early the next spring transplant in the field, where they will give a big yield of honey the first season.

After they have grown one or two years the bunches can be divided the same as pie-plant, as it stools out and spreads like that plant.

The after cultivation is light, needing only to be run through with a light plow or cultivator a few times to keep down weeds. It does best in rich bottom land, not too wet, but it will grow where any weed will grow. I consider it the only plant that can be cultivated profitably for honey alone.

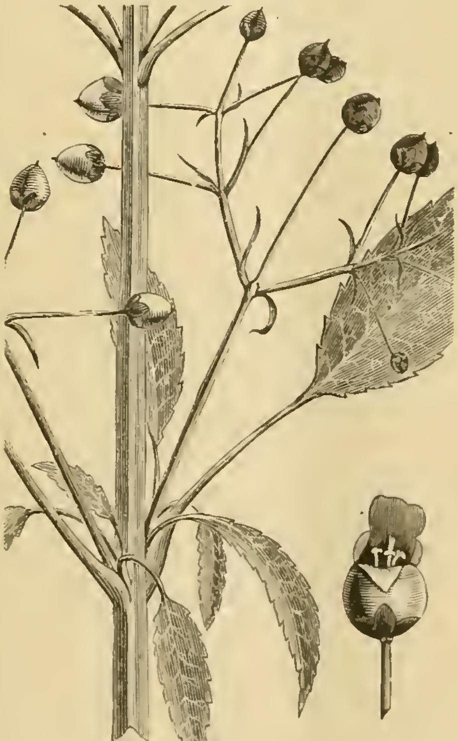
If every bee-keeper will try a "patch" of this plant, he will be surprised at the nectar it affords, and will be made to wonder why it is not more universally grown by apiarists.

Polk Co., Mo.

P. S.—I should have remarkt that it can be grown by preparing the ground where it is to remain, and sow in the fall; but as it is of slow growth while young, it is liable to be choked out by weeds the next season, but for *best* results it should be sown and cultivated as set forth above.

G. W. W.

[Very soon now we expect to have from five to ten pounds of the seed of the Simpson honey-plant. We will first fill the orders already on hand, and the balance will be used to fill others as they are received. The price postpaid is 20 cents per ounce, or two ounces for 35 cents; or we will mail two ounces free as a premium for sending us *one new* subscriber to the American Bee Journal for a year at $1.00.—EDITOR.]



Figwort, Simpson Honey-Plant, Carpenter's Square, etc.

Where Should Comb Honey be Kept?

BY G. M. DOOLITTLE.

A correspondent writes me regarding his honey sweating, or, as he words it, his "honey in some of the sections has turned watery, apparently, as the comb looks transparent, and there are drops of water or thin sweet standing in many places on the combs." Then he wishes to know whether I can explain to the readers of the Bee Journal what the matter is. This is a matter which has been often discust and written upon, but as it is one that will bear "line upon line," perhaps it will not be amiss to say a few words more on the subject.

Only a few days ago there was a man at my house from one of the Western States, who seemed surprised that I stored my honey in so hot a place, and when askt where he would store it he said he took the coolest room in the house, supposing that the cooler honey was kept the better for it, the same as for fruit and other things. This is one of the most common mistakes made, either by bee-keepers or those purchasing honey, and one that has much to do with the limited sale of our product. Some seem to think that the cause of honey becoming watery is because the bees do not thoroughly ripen it before sealing over; but if they used a little more thought on the subject it would seem that they must see the fallacy of such an idea; for, whether ripened or not, the honey can only ooze from the cells after being capt over, on account of a larger bulk of liquid being in the cell afterward than there was at the time the bees sealed the cell. This can come from only one source, which is always brought about by either cold, damp weather or a non-circulation of air, or both.

Honey swells only as it becomes damp, and the first that will be seen of that dampness will be in the unsealed cells where the honey will have become so thin that it will stand out beyond the cells, or, in other words, the cells will be heaping full. If the dampness remains, the sealed honey will soon become watery or transparent, while the honey from the unsealed cells will commence to run out, daubing everything below it; and eventually, if the cause is not removed, the capping of the cells will burst, and the whole will become a souring mass. In one or two instances I have seen honey left in such cold rooms, where the moisture was also very apparent, that it became so very thin that it ran down from the combs and stood in puddles on the floor all around the bottoms of the nice white cases in which it was stored. It was evident that this honey had once been of the very best quality, from the nice appearance of the cases; but the grocer had put it in the cellar when it arrived at his store, and there it had been left till it had thus become very nearly good for nothing, while he was wondering why the bee-keeper who produced it could not have left it on the hive till it was "ripe."

When I first commenced to keep bees I stored my honey in a tight room on the north side of the house, where it usually remained for from four to six weeks before crating for market. In crating this honey I always found the center and rear side of the pile watery and transparent in appearance. As that which was stored first was always the worst, I thought that it must be owing to that being the poorest or the least ripened, until one year I chanced to place this early honey by itself in a warm, dry, airy room, when, to my surprise, I found upon crating it that this first honey had kept perfectly, and was better and nicer than when first taken from the hive, while the later or more perfect honey, as it came from the hive, stored in the old room was as watery as ever.

This gave me the clew to the whole matter; so, when I built my shop I located the honey-room in the southwest corner, and painted the whole of a dark color to absorb the heat of the midday and afternoon sun. On two sides of this room I fixt platforms for the honey, and the sections were so piled on these platforms that the air could circulate all through the whole pile, even if it reacht the top of the room. During the afternoons of August and September the temperature of the room would often be raised to nearly or quite 100°, which would warm the pile of honey to nearly that degree of heat; and as this large body of honey once heated retained the same for some length of time, the temperature of the room would often be from 80 to 90° in the morning after a warm day, when it was as low as 50 to 60° outside at 6 o'clock a.m.

By this means the honey was being ripened each day, and that in the unsealed cells became thicker and thicker, when, by Sept. 15 to 20, or after being in the room from four to six weeks, the sections could be tipt over, or handled in any way desired, without any honey running from even the unsealed, open-mouthed cells that might happen to be around the outside of any of the sections. By having the door and window open on hot, windy days the air was caused to circulate freely through the pile, when I found that it took less time to thoroughly ripen the honey than it did where all was kept closed. In doing this, of course it is necessary to provide screens, so as to keep flies and bees out of the honey-room.

If I wish to keep honey so late in the season that the rays of the sun fail to keep the room sufficiently hot, or should I desire to keep it into the winter, or at any time when the temperature of the room falls below 70° while the honey is in the room, I build a fire in the room, or use an oil-stove to heat it up to the proper temperature of from 90 to 100°. In this way honey can be kept perfectly for an indefinite period, and can always be put upon the market in the very best condition. We should all strive not only to see how large a crop we can obtain, but also to have the crop, whatever it may be, of good quality; keeping it looking nicely at all times, and put it upon the market in enticing shape.

It seems foolish to me to neglect our honey, after once having obtained it, till it deteriorates to the condition of a second or third class article. Onondaga Co., N. Y.

Final Reply to C. B. Bankston.

BY DR. C. C. MILLER.

Mr. Bankston, I have carefully read your reply on page 596, and am glad to take your word for it that I am not utterly hopeless in the matter of mendacity. I confess, however, that when you speak very strongly about writing from imagination, and telling that which is not true, and then quote as an illustration what I said—well, whatever you meant, I think the bulk of readers would understand it as I did. If I understand you properly now, you want me to write from my own knowledge (the very thing I did), but you want me not to tell what I have actually seen with my own eyes unless I know that it accords sufficiently with what others have observed that no one can be misled by it. I supposed if I told the whole truth I would not be very far out of the way.

In a nut-shell, the case is, that I wrote exactly from my experience, and you condemned me for writing from imagination, and I supposed when the case was plainly put before you that you would hardly want it to stand in that way. But you start out by saying, "I do not regret anything I said." I'm sorry you don't. I thought you would.

McHenry Co., Ill.

No. 3.—Establishing a Standard for Queens.

BY DR. E. GALLUP.

There is a great difference in different strains of bees. I had one queen that was prolific enough, but her bees were small, short-lived, and no honey-gatherers. In fact, they would have starved last spring if I had not fed. I kept her quite awhile to see what I could make of her, but her bees were no good, so off went her head. She was a sample sent as a trial queen. I received eight last season that were not worth keeping, still I kept them until along into this summer. I was willing to try and see if I could do anything with them. I replaced them with queens reared from a 5-bander—one that every visitor calls the finest bees in the lot. She is extra-prolific, and they are good honey-gatherers, and Mr. McArthur's fine, large, yellow drones; yet of every one of the eight queens reared their workers took back largely towards the blacks. I gave a frame of eggs to a neighbor, and his turned out the same. Now I had fine queens purely mated at the same time, and right in the same yard. This queen was received in March.

I received one last season from another party, and a tested, warranted queen at that, and her queen progeny took back to the blacks. I let the same neighbor have eggs from her twice, and his turned out the same. There appears to be no fixt characteristic about them.

I have two more extra-beautiful Albino colonies—great honey-gatherers, extra-prolific queens, etc.—but I have not reared any queens from them. I have had too much trouble in weeding out other unsatisfactory characters. I have seen an apiary of 300 colonies, and they were not worth keeping. The owner could count his number of hives, but when he came to count his profits they were nowhere in comparison to good colonies. I have been "all through the mill." In my commencement of rearing artificial queens, I reared any quantity of queens that were superseded the second season. I received a queen, killed an old queen, and soon found my introduced queen dead in front of the hive. I then examined for the cause, and found another queen mistress in the hive. You know it was then taught and believed that two queens would not be tolerated in one hive. I then examined other hives where I had introduced artificial queens, and found two queens in a hive until I was not certain that I had not two queens in every hive in the yard. That was a puzzler to me at that time. Queens that are short lived and peter out the second season are deficient. Something is lacking in their make-up. That we can depend upon, every time.

Please have patience with me, and before I get through this story I will tell you how one can rear good queens—no matter if Doolittle has told you how. In the mouth of two or three witnesses everything shall be establisht.

This is an ideal climate for rearing good queens, as we have a continuous and steady flow of honey—some of the time not a rapid flow—from the first of March until into October, in ordinary seasons; no cold rains or cold weather, but continuous fine weather every day. We had an exception for six weeks in the spring of 1876. There is only one drawback—black bees and hybrids all around me. Don't be alarmed; I am not going to rearing queens for sale in opposition to you chaps.

We now get queens from Italy that play out the second season, from some Italian breeders. Now, with this method of rearing short-lived queens, are you sure that you have not shortened the longevity of the workers at the same time? If you have, is it not time to change your tactics, and see what can be done in increasing the longevity of both queens and workers? I for one am firmly convinced that it can be done. Now if we can increase the longevity of our workers, say to eight weeks in the working season, one can readily see what an advantage it will make in our honey and wax production.

The queen I sold to Arthur McFadden was as well worth ten dollars as some queens I have received are worth ten cents. In fact, they are not worth ten cents per bushel, for one has to furnish a hive and care for them, and the more he has the worse he is off, as they are an expense to him and no profit.

I am not scolding, but coming down to actual facts. I have received some extra-good queens this season from different parties. Of course, I cannot tell about their longevity—that remains to be tested.

When I get farther along you will see, I think, where some of you have failed on account of bad weather, etc., and not on account of not trying to do the best you could.

Orange Co., Calif.

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Reporting the Honey Crop—Other Items.

BY W. P. FAYLOR.

Is it not surprising that so many bee-keepers do themselves and others great injustice by reporting vast crops of honey to the public, and thereby reduce the prices of honey year by year? I have noticed some such reports as these this season:

"The biggest crop in ten years;" "Never had such a honey-flow;" "Bees are rolling in the honey;" "Supers are all full, and the end is not yet."

Just one report from each State like these is enough to demolish the honey-business, and the worst part of it is that a a few flattering reports fix the general impression which many times is far from the truth. In nearly all the city markets the prices of all grades of honey were reduced from one to two cents a pound this season, and that before any of the new crop was shipt to the markets. This should be a lesson to bee-keepers in the future, not to send out flattering reports of a great yield of honey before the honey is harvested. If it could benefit the poor by reducing the prices of honey then it would not be so bad; but as honey is not a necessity, but rather a luxury, the poor will go without it tho it might be had for a penny a pound. Then, by reducing the price of honey we do not create a greater demand for its consumption; for when we get the price of an article down to almost nothing, the people will begin to think it is worth just so little, and so have little desire for it. The commission men who have reduced the prices of honey this season because of the large prospect, will not sell a pound more of honey because of reduced prices.

THE HONEY CROP OF 1897.

I believe the honey crop is not anything as great as was expected from early reports. Michigan and Wisconsin have a light crop from basswood this year, and in Minnesota and Iowa the linden proved an entire failure. From the alfalfa fields come reports of but an average crop.

California has a large crop from sage; but what figure does that cut with Eastern honey? Owing to the war in Cuba there will not be any of the hundred thousand tons of nice honey from that country this year. The Roots report 100 pounds of extracted honey per colony, and 50 pounds of comb honey per colony this year; the Dadants, in five apiaries of 322 colonies, report an average of 50⅓ pounds of honey per colony. These reports from the most favored regions give nothing flattering to speak of. My own crop is less than an average yield, owing to an entire failure from basswood. When basswood yields I get more from that source in a week than from all other sources in a month's time.

EXTRACTED HONEY VS. COMB HONEY.

I agree with Mr. Bevins, "that extracted honey is the only honey we ought to produce." It is more readily digested, hence is healthier, and just as palatable. Extracted honey can be ripened and cured better, as it can come in direct contact with the atmosphere to thicken it, and thereby evaporate all thin moisture from it. I have noticed this year considerable honey produced by the farmers' black bees, that was capt pretty and white, but on cutting it open I find the honey thin and watery.

I have sold on the average, at home this season, fully 10 pounds of extracted honey to one pound of comb honey. In order to build up a home market it is necessary to explain matters—give only ripened honey for samples. I have taken some of the best white clover honey and fed it back to the bees, and let them digest and cap it a second time, then extracted it again; this gives it a doubly good flavor. Then, I give away many samples of extracted honey, with also a sample section of comb honey for comparison with it. I tell the consumer to note the difference in the thickness of the extracted honey with the honey that runs out of the comb as it is cut. This is usually sufficient to establish the matter, and almost always gives a preference for flavor to the extracted article.

DRONES AFFECTED BY THE MATING OF THE QUEEN.

I have sent the editor a sample of drones and worker-bees from the same queen. These bees are from a 5-banded queen that mated with a black drone. The queen is as yellow as gold all over, but you see that some of her drones are nearly black, and vary fully as much as the workers. I have often noticed that when a yellow queen is mismated, her drones will be much darker the second season, but the worker-bees will be the same. This shows that "the blood is the life," and affects the drone progeny as well as the workers. The longer the queen lays, the more does the male progeny resemble that which she was mated with.

Franklin Co., Iowa.

[The sample of bees sent by Mr. Faylor were surely quite a medley, varying in color from quite yellow to quite black.—EDITOR.]

Management of Bees—How Not to Do It.

BY JOHN H. MARTIN.

A young man near San Gabriel became possest with the idea that there was a fortune in the management. The idea having a stronghold upon him, we next find the young man in possession of a large number of colonies of bees. They were located not far from a public highway. Some bee-keepers can so manage an apiary that people living near, or passing to and fro, will scarcely be molested. Not so with this young man. He so managed the bees that they possest the country.

The innocent, plodding rancher, a quarter of a mile away, while speculating upon the probable profits in his watermelon crop, would be rudely awakened from his reverie by a whiz like a bullet, and then a sting.

After the bees had gotten in some lively work on humanity, they started in on larger game, and became so proficient that a span of horses were done to death. This proceeding was a little too much for the suffering community to endure, and the young man and his bees and their stings were ordered out of San Gabriel. After paying a goodly sum to the owner of the team, our novice resolved to move his bees far away from men and animals, so that there could be no cause for complaint, and they were accordingly moved to the San Franciskeeto canyon.

The bees were moved during quite warm weather, insufficient ventilation was given, and at the end of the journey 60 colonies were found dead. It is surmised that these 60 were the ones that had a hand—or rather, a tail end—in the death of the horses, and a just retribution followed.

After the expense of moving, and the loss of the 60 colonies, there was still enough colonies left to secure a very good honey-yield, but the move had been made too late to catch the honey-flow, and our bee-master has experienced only disaster, where proper management would have resulted in a reasonable profit.

HOW TO DO IT.

The proper management of bees consists in having them domiciled in a good hive—a hive that can be manipulated with but little irritation to the sensitive occupants.

There should be a careful breeding from the best strains of bees; when the intelligent bee-master discovers a colony of bees possessing an even temper, and excellent working ability, he proceeds to requeen his apiary from that colony. For the highest success and the most vigorous bees, the requeening should be done during the honey-flow. To be sure, good queens can be reared at other times during the season, but manipulation of colonies, and especially the little queen-rearing nuclei, are so much more comfortable and safe from robbers when the bees are fully occupied in the field.

A large hive full of bees is one that makes the bee-man's heart glad with hundreds of pounds of honey, and knowing at about what time the honey-flow will come, he bends all his energies to get his colonies in proper condition. A little stimulating in the spring may be necessary; a little spreading of the brood now and then; a little equalizing, making the strong aid the weak. An excellent practice is to leave a goodly amount of honey in the hive toward the end of the extracting season. A few full frames of honey in the hive is to the little community the same as a fat bank account to a manufacturing company. After a great amount of experience the writer is a firm advocate of that way of feeding bees, be it anywhere from California to Maine.

The careful bee-man moves his bees at just the right time to catch the honey-flow, and in moving he gives plenty of ventilation; if the move is be made in warm weather, it is done in the night. This moving of bees ought to pay well, for it is hard labor and attended with much anxiety. The all-night vigil, treacherous chuck-holes that may break an ankle, the wierd cry of the owl and coyote, are all accompaniments. Let those who sneeringly refer to bee-keeping as "fussing with bees," take note, we have some iron-sinewed men who for several months work night and day; these are the bee-men that know how, and get the big yields of honey.—Rural Californian.

Some Experiences of 1897 Described.

BY REV. H. ROHRS.

I am well satisfied with my 24 colonies of bees, they having brought me 2,300 pounds of honey. In the spring I lost some by transferring from 8-frame to 10-frame hives, and by hunting for the queens to clip their wings. All this I shall not do next spring. In the spring, I say most decidedly, let alone, hands off.

My 10-frame hives I am using now have a plain board for a cover, and a loose bottom. Next spring I will simply lift the hive from the bottom-board, exchange it for a clean one, and all my work is done without disturbing the colony.

During apple-blossom time I shall not hunt for the queen to clip her wing, and may be lose her. The way I ran my apiary last year and this there is no need for clipping the queen's wing, for my bees don't swarm any more. In two years I did not get a single swarm, but twice as much honey as my neighbors, who had lots of swarms. If my bees don't swarm there is no need for clipping the queen's wings, I think.

As I stated before, in the spring I changed from the common 8-frame Grimm-Langstroth 1½ story hive to a 10-frame New London hive. This hive pleases me, and I thought, now with my bee-shed and this hive I am well equipt. As the hives were of many colors, I placed them confidently close together. Good friends prophesied disaster. I heeded not. I liked my shed. I could keep the bees, and myself when working with them, in the shade. During winter I packt them on the summer stands. So I was satisfied a single-wall hive without protection is not good for summer or winter—in summer it is too warm, and in winter too cold. A common chaff hive is too clumsy to handle. That was the reason I did not want any—just as Mr. E. B. Tyrrell says on page 546.

In spite of the many colors my hives had, they turned queenless—queenless. I became sick of my bee-shed. I did not know what to do. A single-wall hive for summer was good enough, but for spring and winter it would not do. A common chaff hive I could not handle and ventilate as I wisht. Now I had seen the advertisement of the New Champion hive, but I failed to see any good in it, and so said to Mr. Kreutzinger and the editor of the American Bee Journal a year ago. That I was wrong did not take very long to find out, when I was so happy as to see this new hive in reality before me. I ordered two sample hives at once. They pleased me in every way. I wrote Mr. H. Alley, the noted queen-rearer, as I had found out that he was acquainted with the New Champion. He wrote back: "By all means use the New Champion hive. It is a good one. I have used one very much like it." To this I say, Amen. To like this hive you must see it. You can take it apart in half a minute, and put it up again in a minute. Bees want shade and ventilation; this hive gives both. Bees want protection and warmth during winter; this hive affords it. Bees do not like it either too cold or too warm; this hive accommodates them. I will have no other hive than this. I have ordered 50 for all my bees, as I have now 47 colonies.

Rock Co., Wis.

BEEDOM BOILED DOWN.

Giving Due Credit.—The practice of copying an item or article and then instead of giving proper credit, merely saying "Exchange," seems to be working its way into bee-periodicals. Bad. Stop it. If a thing is worth copying it is worth crediting properly.

Size of Queens.—Editor Hutchinson, in commenting upon an article by G. M. Doolittle, which he copies from the American Bee Journal, endorses the idea that large size is not such a very desirable thing in queens, and says some of the best results he ever obtained came from colonies with medium-sized or small queens. For all that, it's "human nater" to be pleased at the sight of a queen of unusual size.

Merging the Two Unions.—Amalgamation was opposed by Prof. Cook, and he thought there was no need of the new Union. His views have changed, and he now frankly says (Gleanings, page 659): "I do not believe both Unions will survive. I do not think there is room for both......I am firmly of the opinion that the two Unions should be merged into one; and it begins to be very clear to me which one will survive."

Honey on the New Drawn Fondation.—At the Texas convention, as reported in Southland Queen, O. P. Hyde had a section of honey made on drawn foundation, and said the bees were slow to accept it, and it had more fish-bone than thin foundation of the ordinary kind gave. Nearly all report differently, and it is evident that different circumstances may produce different results—a rule that holds good pretty generally.

A Topsy-Turvy Weather-Man.—Reports indicate some topsy-turvying of the weather, the weather-man having some way gotten the pigeon-holes changed, giving us cool weather in August and August weather in September. Either the present weather-man will have to be straightened out or a brand new one given the job—one who will "keep things right side up."

Breeding for Longer Tongues.—Prof. Cook, in Gleanings, page 658, refers to the answers in the American Bee Journal as to the possibility and desirability of increasing the length of bees' tongues, and is surprised to find that seven of the repliers have doubt as to the success of efforts to breed for longer tongues. He thinks it will take long years and much patience with the right man back of it, using a tongue-gauge to note small differences in tongue-length and taking advantage of these small differences. But instead of having the effort made by one man, or a few men, why would it not be a good plan for the whole fraternity to be engaged in it? There is a big difference now in the length of bees' tongues, and with a whole lot at the work some one would strike on a colony with extra length of tongue that would send the business a long ways ahead at a single bound. Put as much enthusiasm into the chase for long tongues as was put into the chase for stripes, and long tongues will hardly need long years to be reacht.

To Discourage Robbing.—H. E. Hill gives the following plan to discourage robbers: Punch a small hole near the bottom of a tin pail or can, put in a plug which will allow a constant dropping of water. Set this on the hive, and let the drops fall on a block an inch high at the entrance. The spray from the drops discourages the robbers, while the height of the block prevents the spray from troubling the guards.—American Bee-Keeper, page 261.

Prevention of Swarming and Increase.—Doolittle prevents swarming and increase in his out-apiary by caging the queen before swarming is thought of. In 10 days he carefully cuts out every queen-cell, leaving the colony hopelessly queenless. Then the queen, or any other queen that he prefers, is put into a cage that has ⅜ inch hole, an inch long, stuft full of the "Good" candy. It takes the bees five days to eat through the candy, making 15 days in all that no queen has been laying, and that stops all desire to swarm.—Gleanings, page 666.

Growing Sweet Clover in Fields.—Perhaps every one knows that sweet clover grows with no effort along the roadside, and yet many find it difficult to get it to grow in cultivated fields. W. H. Eagerty makes a roadside of his field. First has ground well plowed and harrowed before sowing, early in spring, if possible in March. Now comes the trick. He hitches four or more horses abreast and drives them back and forth till the ground is packt solid. By driving in straight lines he has the clover come up in rows.—Gleanings, page 666.

Best Wood for Hives.—The lightest and most porous wood is the best non-conductor of heat. Taking water as a standard, the density of different woods is as follows: Oak, 1.02; beech, 0.86; walnut, 0.85; pine, 0.59; maple, 0.54; poplar, 0.45; which makes poplar the warmest, and so the best wood for hives. So says Muenchener Bienenzeitung. There must be a difference between their woods and ours, to make maple lighter than pine, and, besides, there are other things than warmth to be considered in hive-making, so that in general pine is likely to hold its place in the making of hives.

Large vs. Small Hives.—It is well known that the Dadants have for a long time argued in favor of large hives, taking no particular part in the discussion as to the relative merits of the 8 and 10 frame hives, considering both entirely too small. W. Z. Hutchinson has stood for small hives, and wondered how the Dadants could have such different views. He now thinks that both are right, the difference resulting from differing conditions in different localities, especially time and length of honey harvests. So there you are, and you must find out whether your locality is a Dadant or a Hutchinson locality.

Publishing Honey Crop Prospects.—Gleanings is feeling a little uneasy in conscience because it was perhaps a little optimistic in expressing its views as to the prospect of the honey crop. It is a hard thing to forecast the state of the market, and while it is a useful thing to get the views of the different bee-papers, one should always use his own judgment. Gleanings thinks it will be a little chary about advising hereafter, but if it gives no advice at all, some of its clientelle will be mad. The American Bee Journal advised that bee-keepers should be satisfied with 12 cents—which perhaps was a rash thing to specify a particular figure, for while that might be excellent advice for some it would be bad for others. Fix it as you like, the journals have a difficult duty to perform in the matter, and too much ought not to be expected of them.

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Keeping Frames of Honey Over Winter.

I have some extracting-frames filled and mostly capt.

1. Would it granulate if put one or two supers high under the brood-chamber?

2. Would it be better to leave it on top? I want them in the spring for dividing, for increase, or for feeding in case of a honey failure, which comes here as regular as a crop.

READER.

ANSWER.—Put under a colony would be little different from having the honey entirely away from the hive, and you may count on granulation when the weather is cold enough, altho granulation will not come as promptly as if the honey was extracted. Placed over, the rising heat from the bees would retard granulation still more, and if the colony is sufficiently strong the bees might partly cover the frames.

Queen Questions—Stimulative Feeding—Drones.

1. I have a selected queen (clipt) for the purpose of re-queening. In examination one day I found (in the same hive) a laying queen of the same looks which was not clipt; I caged her, and continued looking for my clipt queen, which was also found on another comb. How is this? Is it an usual thing for two laying queens to be in one hive without any division?

2. Does a laying queen ever leave the hive on any other occasion save that of swarming or absconding? If so, on what reason else?

3. Does clipping injure queens in any way?

4. Is Doolittle's "Scientific Queen-Rearing" the best method of rearing best queens?

5. What month is best to rear good queens in the United States? or what time is best to import a queen?

6. Do bees discharge any feces? If so, where do they deposit it?

7. Will sugar syrup feeding stimulate breeding? If so, is it as good as honey?

8. How long do drones live?

JAMAICA.

ANSWERS.—1. Every now and then some one finds two queens in a hive. Generally, however, it is a case of mother and daughter, the mother being old and soon failing entirely. I had one case, however, in which two queens, not related, both apparently vigorous, dwelt together amicably a number of weeks, both laying in the same colony.

2. As a rule no, but there have been exceptions reported. It is just possible, however, that those who reported the exceptions were mistaken in their observations.

3. I think not. Some say that bees are more likely to supersede a clipt queen, but this may be because the supersedure of a clipt queen can be readily detected, while a queen with whole wings may be superseded and the change not be noticed, because the new queen looks so much like the old.

4. Every one is likely to think his own method best, but you may feel safe in general in following Doolittle. He's a very close and careful observer, and a conscientious adviser.

4. Good queens are reared throughout all the hot months, and perhaps there would be no trouble in your getting them any time from June to the last of September.

6. Yes, when on the wing away from the hive, except when through long confinement they become practically diseased, and then pollute the hive and combs with their excrement.

7. Any feeding will tend to stimulate breeding, but sugar syrup is not so good as honey.

7. No specific length of time. They generally live till the workers decide they are no longer wanted, there being a failure, more or less, of the yield of honey.

Honey-Plants to be Named.

I send samples of two kinds of flowers, No. 1 and No. 2, on which my bees are working vigorously. I would like to know what they are worth as honey-plants.

PENN.

ANSWER.—As I have said more than once, I am not much of a botanist, and I cannot name the plants you send beyond saying they belong to the compositæ. But any plant upon which bees work vigorously is of value, and that, even tho they never store a drop of surplus therefrom. For there's a good deal that's relative in the value of honey-plants. Suppose you have a plant that yields one-fourth as much honey as clover. If clover is plenty, and the plant in question blooms at the same time, the bees will not touch it; it is worthless. But if it comes at a time when no nectar can be had from any other source, the bees will work busily upon it, and it is of real value. Even if they get very little honey from it, the fact that they work vigorously upon it shows that it yields more than perhaps anything else at that particular time, and it keeps the bees from robbing and other mischief, and helps to keep the queen laying.

Moving Bees—Queen Lost in Winter—Transferring—Wiring Frames—Shading and Ventilating New Colonies.

1. How and when can I move my apiary about 30 yards? Last winter, during a cold spell of weather, I moved my bees, and in about 10 days the weather turned warm and the bees came out and went back to the old stand, and clustered on a trunk of a tree.

2. In case a queen dies during winter, do the bees rear them another? If so, does she have to wait until spring to be fertilized?

3. In transferring, how would it do to drive the bees from the old hive into a new one with foundation, and not transfer any of the old comb?—a satisfactory job which I have never been able to do.

4. Should the wire, in wiring foundation in frames, be drawn tight or left slack?

5. How much smaller than the inside of a frame should the foundation be?

6. Why is there so much more stress (in the papers) laid on shading and ventilating a colony of bees just hived or transferred, than there is on an old colony?

TENNESSEE.

ANSWERS.—1. The time to move them is when they will not fly again for some considerable time, and so mark their location upon their next flight. Perhaps that's the very thing you tried to do, but it turned out that they had a flight sooner than you expected. It might perhaps be better to wait till later in the winter—that's guessing that you moved them early in the winter—but the probability is that in Tennessee warm spells come almost any time in the winter. It will help matters somewhat if at the time of moving you set up boards in front of the hive, so that the bees cannot fly directly out of the hives. Another thing might help: When the first warm day comes, and the bees begin to fly out, shut them into the hives so they can't fly—look out you don't smother them—and after they have struggled to make an exit for some time, open the entrance, having the board in front as before-mentioned, and they will do better at marking the entrance. If you cannot keep them from going back to the old spot, set there one or more hives with combs in them, and after they stop flying for the day take the bees and add them to the hive that needs them most.

2. When a queen dies in winter, you may count the colony is gone up. There is no brood or eggs present from which to rear a queen.

3. It will do all right, and if you drive all the bees you will have a good colony. But of course you'll lose all the brood in the hive, which amounts to a good deal. If you get the queen and most of the bees, leaving enough bees in the hive to take care of the brood, you can drive out the rest three weeks later, adding them to the colony, thus having all the bees you would have had if the bees had been left in the old hive. A favorite way with some is to wait till a prime swarm issues, hive the swarm in a frame hive, then three weeks later drive out the balance.

4. I'm not sure. I've put in a great deal of wire, and have always drawn it tight, but some say that with horizontal wiring there will be less sagging of the foundation if the wire be left slack. I think so good authorities as C. P. Dadant and the A. I. Root Co. favor this view. If the wires be perpendicular, perhaps all would have them tight. I've just consulted Root's catalog, and they say the wire should be "drawn just tight enough to take up the slack (be sure not too tight or the foundation will buckle)."

5. The same authority says to cut the foundation ⅜ inch shallower than the inside depth of the frame. Nothing is said about the horizontal length of the foundation, but ⅜ inch is not needed there; ¼ inch will make good work, and if the hive is level from front to rear, there is no need of more than ⅛ inch between the foundation and the end-bar, and I've had very good work with no space whatever.

6. Just because the bees put so much stress on it. With a well establisht home and a rising family the bees will stand a great deal of heat before they will desert, but when there is nothing of that kind to hold them, the bees are more exacting in their requirements, and if the hive is too hot and close they'll promptly take their departure. One thing that makes some difference is that at the time of swarming there is a great deal of excitement, and that makes the heat greater.

Stores for Winter—Ventilating Hives to Prevent Swarming.

1. I have four colonies of bees, and this year took 300 pounds of honey in one-pound sections, and the honey-flow ceast suddenly about July 1, when a drouth set in and still continues, no rain yet. The last of August I made an examination, and found the colonies all strong, but almost destitute of honey, so I at once began to feed, and fed each colony just 15 pounds of granulated sugar, with an equal amount of water by measure. Is that amount of sugar and water sufficient to carry them through until spring?

2. I see it recommended by some bee-keepers to raise the hives from the bottom-boards in summer to give ventilation and prevent swarming? As my hives are all nailed fast to the bottom-boards, would you advise loosening them in order to raise them? or would you let them alone?

3. If so raised, would not the queen, when she comes out with a swarm, be liable to come out at the back or sides of the hive, and be lost? My queens are all clipt.

4. My hives are all 8-frame dovetailed, with a scant ½ inch entrance the full width. I had thought of enlarging them to one inch, the full width, next spring, thinking that would give them sufficient ventilation. Would you advise that, or not?

5. I have been following the plan of controlling swarming where no increase is desired, as given by you in your book, "A Year Among the Bees," page 69, by caging the queen for 10 days, then releasing her after cutting out all queen-cells. I have been very successful that way, yet it requires considerable work. Do you still like the plan? And do you think the bees will work just as well where the queen is caged for 10 days? INDIANA.

ANSWERS.—1. The bees may, and they may not, have sufficient stores. It makes a difference whether they are cellared or not. It makes a big difference whether there is a good yield of fall honey or nothing whatever. Very likely, with what they may gather—for usually they gather a little fall honey—they will come through all right. Besides, there may have been enough honey in the hive before feeding to make quite a little difference. If wintered in the cellar they will most likely be all right.

2. There are advantages and disadvantages in both ways, but on the whole I believe I don't want any tight bottoms, altho for years I had many of them.

3. Clipt queens may be a little more likely to be lost if the hive is open all around, but I never could discover any difference. It is more troublesome, however, to find the queen when she comes out if you have to watch on four sides of the hive instead of one.

4. Yes, as soon as the weather is warm, I'd rather have an inch than half as much. Of course you wouldn't enlarge the entrance by cutting away any part of the hive proper, but by making the change in the bottom-board. A good way practiced by some is to make slender wedges the entire length of the hive, the head of the wedge being half an inch or an inch thick, depending on how large you want the entrance, the head of the wedge being under the side of the hive in front, and the wedge running down to a sharp edge at the back end of the hive.

5. Yes, the plan is a good one, where there is any one present to watch for swarms when they issue. It requires a good deal of work to cut out the cells, and the worst of it is that you may miss cells. Altho it takes a good deal more room to describe it, I think you will find the plan given on the next page requires less labor, as in that plan you get the bees themselves to destroy the queen-cells, and they never miss any. I doubt if the bees do as well at building comb while the queen is caged or out of the hive, but they might do less in the long run if the swarm were hived in the usual way.

Candied Honey in Combs for Winter.

I have 200 colonies of bees, and each colony has from three to five frames of *candied* honey in them. What is best to do with it? We run for comb honey. Will the bees winter well on the old candied honey? I neglected to extract out of the brood-chamber last fall with above results.
COLORADO.

ANSWER.—If there is enough liquid honey in the hives aside from that which is candied, the bees may winter all right. And if by using both the liquid and the candied they will have enough, still they may winter all right. It is doubtful if the candied honey, however, is as good as the liquid. The bees generally take out the softer part and leave the harder grains, or rather they throw these grains out of the hive, wasting it. Just what they do with it when it is candied into one uniform mass, I don't know. I suspect that in the dry climate of Colorado they might have trouble to do anything with it, still they manage hard, dry sugar-candy, and perhaps they'd manage the honey that was entirely solid. From what has been said, you will see that the probability is that if bees do winter on candied honey, it will take more than of the liquid.

If you should get through the winter all right, the problem will still remain: What shall be done with the granulated honey left in the combs? The whole thing could be melted up, but it seems too bad to destroy the combs. Perhaps if openly exposed the bees would rob it out. In case the granules are thrown out, something could be set under the combs to collect them, and then they could be melted. Perhaps it might be a good thing to sprinkle the combs with water before offering them to the bees.

Now all this is largely guessing, and it would be a kindness if some Colorado man who has "been through the mill" would tell us all about it.

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United States Bee-Keepers' Union.

Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

MEMBERSHIP FEE—$1.00 PER ANNUM.

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Editorial Comments.

The Northwestern Convention, to be held at the New Briggs House, northeast corner of Randolph street and Fifth avenue, Chicago, Wednesday and Thursday, Nov. 10 and 11, promises to be a good one. Editor Hutchinson, of the Bee-Keepers' Review, expects to be here; and Editor E. R. Root, of Gleanings, says he "might come with some coaxing." We think he ought to come *without* coaxing.

Remember, this meeting comes during the Fat Stock Show, when the railroad rates will be low. It is likely that the Illinois State Bee-Keepers' Convention will hold a session some time during the two days, as may be decided upon after the members get here.

We are hoping that every bee-keeper within at least 200 miles of Chicago will be here. There will likely be no essays, but lots of very interesting and profitable discussions, in regular old Northwestern style. Come.

◆

The Illinois Honey Exhibit at the State Fair, held at Springfield Sept. 27 to Oct. 2, inclusive, was very fine indeed. The editor of the American Bee Journal had the honor, as well as pleasure, of acting as judge of the exhibits in the apiary department, and was in attendance Wednesday and Thursday, Sept. 29 and 30.

We might say here that, so far as we know, the Illinois Fair is the most liberal in its premium list toward bee-keepers, of any Fair association in this country. The cash premiums offered this year amounted to a total of $464. No wonder creditable displays were made.

The premiums offered on bees and honey were this year divided—first, "For Illinois bee-keepers only;" and, second, "Open to the world." In the former there were four exhibitors; and in the latter, seven, the three extra being from Michigan. But we noticed that the entries made did not quite cover all the premiums offered.

The judge, in making the awards, was governed by the rules adopted by the Illinois State Bee-Keepers' Association, publisht on page 261 of the Bee Journal for April 29, 1897. The following were the winners of the premiums:

FOR ILLINOIS BEE-KEEPERS ONLY.

Display of comb honey—1st, $25, M. J. Becker; 2nd, $15, Jas. A. Stone & Son; 3rd, $5, Geo. Poindexter.

Case of white clover comb honey, 12 to 24 lbs.—1st, $5, M. J. Becker; 2nd, $3, Jas. A. Stone & Son.

Case of basswood honey, 12 to 24 lbs.—1st, $5, S. G. Soverhill.

Case of comb honey from fall flowers—1st, $5, Jas. A. Stone & Son.

Display of extracted honey—1st, $25, C. Becker; 2nd, $15, Jas. A. Stone & Son; 3rd, $5, Geo. Poindexter.

Display of samples of extracted honey named—1st, $5, C. Becker; 2nd, $3, Jas. A. Stone & Son.

Display of candied honey—1st, $15, Jas. A. Stone & Son; 2nd, $10, C. Becker.

Display of beeswax—1st, $15, Jas. A. Stone & Son; 2nd, $10, C. Becker.

Display of queen-bees in cages—1st, $5, Thos. S. Wallace; 2nd, $3, Jas. A. Stone & Son.

Display of Illinois honey-plants—1st, $5, C. Becker; 2nd, $3, Geo. Poindexter.

OPEN TO THE WORLD.

Display of comb honey—1st, $25, W. Z. Hutchinson; 2nd, $15, Geo. H. Kirkpatrick.

Collection of labeled cases containing 12 or more pounds of white honey from different flowers—1st, $10, Geo. H. Kirkpatrick; 2nd, $5, W. Z. Hutchinson.

Collection of labeled cases containing 12 or more pounds of amber or dark honey from different flowers—1st, $10, Geo. H. Kirkpatrick.

Display of extracted honey—1st, $25, W. Z. Hutchinson; 2nd, $15, C. Becker; 3rd, $5, Geo. H. Kirkpatrick.

Display of samples of extracted honey, named—1st, $5, Geo. H. Kirkpatrick; 2nd, $3, W. Z. Hutchinson.

Display of candied honey—1st, $15, Jas. A. Stone & Son; 2nd, $10, W. Z. Hutchinson.

Display of beeswax—1st, $15, W. Z. Hutchinson; 2nd, $10, Jas. A. Stone & Son.

One frame dark Italian bees—1st, $5, Geo. Poindexter; 2nd, $3, Elmer Hutchinson.

One frame golden Italian bees—1st, $5, Thos. S. Wallace; 2nd, $3, W. Z. Hutchinson.

One frame Carniolan bees—1st, $5, W. Z. Hutchinson; 2nd, $3, Geo. H. Kirkpatrick.

One frame Albino bees—1st, $5, Geo. H. Kirkpatrick; 2nd, $3, W. Z. Hutchinson.

One frame Cyprian bees—1st, $5, Elmer Hutchinson; 2nd, $3, Geo. H. Kirkpatrick.

One frame Holy Land bees—1st, $5, W. Z. Hutchinson; 2nd, $3, Geo. H. Kirkpatrick.

One frame black bees—1st, $5, W. Z. Hutchinson; 2nd, $3, Geo. Poindexter.

We might say that we found the rules for judging a very great help, but in several instances they need revising badly. At some future time we hope to point out some of their weak points, now that they have had one good test.

◆

Bees Win Again.—Mr. J. L. Strong, of Page Co., Iowa, it will be remembered, was in trouble last year on account of keeping bees in a city. His case came up in the courts recently, and of course decided in his favor. Here is what he reported Sept. 29:

> I wrote you last January that proceedings had been commenced in the district court to prevent me from keeping bees in the city of Clarinda, Iowa, claiming the same as a nuisance. The suit was to have come up in the January term, but was continued until the present term, when a decree was given in favor of the defense.
>
> The plaintiff had an army of witnesses, but when they went on the stand, they knew very little about what they were expected to testify to. The trial occupied a day, and the

plaintiff tried hard to show that the bees destroyed both grapes and peaches; but the Government Report by N. W. McLain seemed to settle the matter with the Judge, who gave his decision in favor of the "little busy bee."

J. L. Strong.

Here is another proof that very little besides past experiments and former court decisions are needed to protect bee-keepers in their right to keep bees, and to prove that the pursuit is not a nuisance. What is most needed now is a big effort to stop the adulteration of honey. That is the next stronghold to be taken by bee-keepers. And the New Union will help do it just as soon as there is a sufficiently large bank account at its back. We hope bee-keepers will soon begin to realize this fact, and pour in their membership dollars to aid in carrying forward a work that is so directly in their own interest as this. Send your dollar to us or to the Secretary, Dr. A. B. Mason, Station B, Toledo, Ohio, and have a hand in the fight.

◆

The New Union's Constitution was somewhat overhauled at the recent Buffalo convention; or perhaps we would better say that certain amendments were recommended, the same to be approved or rejected at the time of the annual election to be held in December. But before giving the suggested changes, we here show

The New Union's Present Constitution.

ARTICLE I.—NAME.

This organization shall be known as the United States Bee-Keepers' Union.

ARTICLE II.—OBJECTS.

Its objects shall be to promote and protect the interests of its members; to defend them in their lawful rights; to enforce laws against the adulteration of honey; to prosecute dishonest honey commission-men; and to advance the pursuit of bee-culture in general.

ARTICLE III.—MEMBERSHIP.

Sec. 1.—Any person may become a member upon the payment of a membership fee of one dollar annually to the Secretary or General Manager on or before the first day of January of each year, except as provided in Section 8 of Article VI of this Constitution.

ARTICLE IV.—OFFICERS.

Sec. 1.—The officers of this Union shall be a President, a Vice-President, a Secretary and a Board of Directors which shall consist of a General Manager and six Directors, whose terms of office shall be for one year, or until their successors are elected and qualified; and the Director, aside from the General Manager, receiving the largest number of votes shall be chairman of the Board of Directors.

ARTICLE V.—ELECTION OF OFFICERS.

Sec. 1.—The President, Vice-President, and Secretary shall be elected by ballot by a majority of the members present at each annual meeting of the Union, and shall constitute the Executive Committee.

Sec. 2.—The General Manager and the Board of Directors shall be elected by ballot during the month of December of each year by a majority of the members voting; blank Postal Card ballots for this purpose, accompanied by a full list of the membership, shall be mailed to each member by the General Manager; and said ballots shall be returned to a committee of two members, who shall be appointed by the Executive Committee, whose names and postoffice address shall be sent to the General Manager by said Executive Committee on or before the 15th of the November preceding the election. Said committee of two shall count the ballots and certify the result to the General Manager during the first week in January.

ARTICLE VI.—DUTIES OF OFFICERS.

Sec. 1.—*President*—It shall be the duty of the President to preside at the annual meeting of the Union; and to perform such other duties as may devolve upon the presiding officer.

Sec. 2.—*Vice-President*—In the absence of the President the Vice-President shall perform the duties of President.

Sec. 3.—*Secretary*—It shall be the duty of the Secretary to keep a record of the proceedings of the annual meeting; to receive membership fees; to furnish the General Manager with the names and postoffice address of those who become members at the annual meeting; to pay to the Treasurer of the Union all moneys left in his hands after paying the expenses of the annual meeting; and to perform such other duties as may be required of him by the Union; and he shall receive such sum for his services, not exceeding $25, as may be granted by the Board of Directors.

Sec. 4.—*General Manager*—The General Manager shall be Secretary of the Board of Directors, and shall keep a list of the names of members with their postoffice address; receive membership fees, and be Treasurer of this Union. He shall give a bond in such amount, and with such conditions as may be required and approved by the Board of Directors, for the faithful performance of his duties, and perform such other services as may be required of him by the Board of Directors, or by this Constitution.

Sec. 5.—At the time of sending the ballots to the members for the annual election of the Board of Directors, he shall also send to each member a statement of the financial condition of the Union, and a report of the work done by said Board of Directors.

Sec. 6.—The Board of Directors shall pay the General Manager such sum for his services as said Board may deem proper, but not to exceed 20 per cent. of the receipts of the Union. Said Board shall meet at such time and place as it may decide upon.

Sec. 7.—*Board of Directors*—The Board of Directors shall determine what course shall be taken by the Union upon any matter presented to it for consideration, that does not conflict with this Constitution; and cause such extra, but equal, assessments to be made on each member as may become necessary, giving the reason to each member why such assessment is required; provided that not more than one assessment shall be made in any one year, and not to an amount exceeding the annual membership fee, without a majority vote of all the members of the Union.

Sec. 8.—Any member refusing, or neglecting, to pay said assessment as required by the Board of Directors shall forfeit his membership, and his right to become a member of the Union for one year after said assessment becomes due.

ARTICLE VII.—FUNDS.

Sec. 1.—The funds of this Union may be used for any purpose that the Board of Directors may consider for the interest of its members, and for the advancement of the pursuit of bee-culture.

ARTICLE VIII.—VACANCIES.

Any vacancy occurring in the Board of Directors may be filled by the Executive Committee; and any vacancy occurring in the Executive Committee shall be filled by the Board of Directors.

ARTICLE IX.—MEETINGS.

This Union shall hold annual meetings at such time and place as shall be agreed upon by the Executive Committee, who shall give at least 60 days' notice in the bee-periodicals, of the time and place of meeting.

ARTICLE X.—AMENDMENTS.

This Constitution may be altered or amended by a majority vote of all the members, provided notice of said alteration or amendment has been given at a previous annual meeting.

Secretary Mason has written out the changes proposed at Buffalo, and forwarded them to us for insertion in these columns. He presents them as follows:

Mr. Editor:—At the recent meeting of the United States Bee-Keepers' Union, held in Buffalo, N. Y., the following amendments to the Constitution were proposed by A. B. Mason, in accordance with Article X of the Constitution:

CONSTITUTIONAL CHANGES RECOMMENDED.

That Article III, Section 1, be amended so as to read: "Any person who is in accord with the purpose and aim of this Union, and will work in harmony with the same, may become a member by the payment of one dollar annually to the General Manager or Secretary; and said membership shall expire at the end of one year from the time of said payment, except as provided in Section 8 of Article VI of this Constitution."

That Article IV be so amended as to read: "Section 1.—

The officers of this Union shall be a President, a Vice-President, a Secretary, and a Board of Directors, which shall consist of a General Manager and six Directors whose term of office shall be for three years, or until their successors are elected and qualified, except that the term of office of the two Directors having received the smallest number of votes at the time of voting for Directors in March, 1897, shall expire Dec. 31, 1897; and that the term of office of the two Directors having received the next largest number of votes at the said time of voting shall expire Dec. 31, 1898; and that the term of office of the two Directors having received the largest number of votes at the said time of voting shall expire Dec. 31, 1899."

"SECTION 2.—The Board of Directors shall choose their own chairman."

That Section 2 of Article V be amended so as to read: "The General Manager and the two Directors to succeed the two whose term of office expires each year, shall be elected by ballot during the month of December of each year by a majority vote of the members voting; and the Board of Directors shall prescribe how all votes of the members shall be taken."

That the words "at the annual meeting," in Section 3 of Article VI be substituted by the words, "whenever requested by him; to make a report at the annual meeting of the Union, and whenever requested to do so by the Board of Directors, of all moneys received and paid out by him since the last annual meeting."

That Section 5 of Article VI be amended so as to read: "At the time of sending the ballots to the members for the annual election, he shall also send to each member a list of the names of all members, and an itemized statement of all receipts and expenditures of the funds of the Union by the Board of Directors, and a report of the work done by said Board of Directors."

That the words "altered or," in Article X, be erased.

A. B. MASON, *Sec.*

The amendments are now before the New Union's members as they will be presented to be voted upon later on. As all of them were almost unanimously approved at Buffalo, they will doubtless be adopted and become a part of the Constitution in December.

The Weekly Budget.

THE ONE-PIECE SECTION CO. (formerly the Wauzeka Section Co.) has recently removed from Wauzeka to Prairie du Chien, Wis. Mr. W. P. Keyes is the manager of the concern.

DR. F. W. RICH, of Cook Co., Ill., dropt in to see us one day last week. He is one of the new bee-keepers, and will make a success with his bees. He anticipates going into the business extensively another season.

MR. W. C. LYMAN, of Dupage Co., Ill., gave us a short call this week. He increast from about 50 colonies the past season to 80, and took about one ton of honey. He sells in the home market. He will attend the Northwestern convention next month here in Chicago.

REV. A. B. METTLER, of La Salle Co., Ill., called on us last week, when attending the annual session of the Rock River Conference of the Methodist church being held in this city. Mr. Mettler is a bee-keeper as well as a preacher. We regretted not seeing him, as we happened to be out of the office when he called.

HON. A. S. HARDY, Premier of Ontario, Canada, in his boyhood days cultivated a taste for honey. The Canadian Bee Journal reports that at the recent Toronto Exposition Mr. Hardy spent some time at the tent where bees were exhibited, and also visited the honey exhibit. No wonder our Canadian bee-keeping friends are proud of their Premier. Most men in high official position have but little time to even notice things outside of their special office. But the majority of them would be interested in such sweet things as honey and bees if they had half a chance.

MR. D. W. HEISE—one of the many bright and original Canadian bee-keepers—contributes to the Canadian Bee Journal quite regularly an interesting column or two called "Notes and Pickings." Whenever he begins "Picking" on us, we'll make "Notes" of it, and then he'll likely be about as "hot" as his name would indicate when pronounced in Germany.

C. L. BOWEN, of Ray Co., Mo., referring to a lost copy of the Bee Journal last month, said:

"My paper failed to come last week—the first time in 10 years."

We hardly need be ashamed of a record like that—only one copy of a weekly bee-paper missing in 10 years!

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We would like to have each of our present readers send us *two new subscribers* for the Bee Journal before November 1, 1897. That surely will not be hard to do, when each will need to pay *only 25 cents* for the last 4 months of this year, or only about 6 cents a month for the weekly American Bee Journal. Any one with only a colony or two of bees should jump at such an offer as that.

Now, we don't ask you to work for us for nothing, but will say that for each **two** new 25c. subscribers you send us, we will mail you your choice of *one* of the following list:

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Green's Four Books on Fruit-Growing	25c.
Ropp Commercial Calculator No. 1	25c.
Silo and Silage, by Prof. Cook	25c.
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1 Pound White Clover Seed	25c.
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Winter Problem in Bee-Keeping, by G. R. Pierce. Result of 25 years' experience. 30 cts.

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History of Bee-Associations, and Brief Report of the first 20 conventions. Price, 10 cts

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The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only ONE book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted, see postpaid prices given with the description of the books on this page. Following is the clubbing-list:

1.	Langstroth on the Honey-Bee	$2.00
2.	A B C of Bee-Culture	2.00
3.	Bee-Keeper's Guide	1.75
4.	Bees and Honey [Cloth bound]	1.65
5.	Doolittle's Scientific Queen-Rearing	1.75
6.	Dr. Howard's Foul Brood Book	1.10
7.	Advanced Bee-Culture	1.30
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32.	Hand-Book of Health	1.10
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35.	Silo and Silage	1.10
36.	Winter Problem in Bee-Keeping	1.30
37.	Apiary Register (for 50 colonies)	1.75
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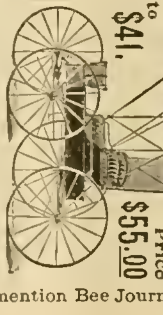

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General Items.

Very Light Honey Crop.

The honey crop is very light here this year. Bees are gathering honey slowly now. I think they will have enough for winter.
G. D. HAWK.
Sullivan Co., Tenn., Sept. 25.

Report—Feed Scarce.

I have 1000 pounds of fine comb honey and sold about an equal amount of extracted. I increast from 56 colonies to 102. Summer feed is scarce this year. We had no late rains.
C. W. KERLIN.
Monterey Co., Calif., Sept. 27.

Did Well, Considering.

We have 175 colonies at present, all in chaff hives. I have secured 4000 pounds of white honey from them this season. They did extra well, considering the dry weather. I haven't any late honey to speak of. I marketed my honey in Detroit, the same as usual, for 8 and 10 cents per pound.
C. A. STANNARD.
Lapeer Co., Mich. Oct. 2.

Fears Foul Brood.

I have about 70 colonies of bees, and suspect that I have several mild cases of foul brood. Please refer me to some one to whom I may send a sample of brood to be analyzed.
W. T. SUTER.
Northumberland Co., Pa., Sept. 28.

[No doubt Mr. Wm. Mc.Evoy of Woodburn, Ont., Canada, Ontario's Foul Brood Inspector, would be glad to help you or any one else who may wish to mail him samples of affected brood.—EDITOR.]

Carniolan Bees—The Home Market.

I am pleased with the Bee Journal. Some bee-keepers are so far advanced that they can learn nothing from bee-papers. I have not got there. I am learning all the time by reading and by observation. I run mostly for extracted honey because I reach the man who eats honey—I mean the workingman—the man who buys it by the 60-pound tin can. Those who buy comb honey buy it to look at on the table, a few sections is their winter's supply.

I use 10-frame Langstroth hives, and never allow my bees to lie outside of the hive. I raise the hive up an inch from the bottom-board all around, and raise the cover the width of a section. I select a shady location and have no use for non-swarming bees. I want the worst swarmers I can find, for that means the most prolific, the most business bee. I have Carniolans. I saw them condemned as such awful swarmers. I said, "That is the bee I want." I found them more prolific, the queen occupies about three frames more with brood than the Italians, they are more gentle, winter better, and are just as good to gather honey. I was disappointed in their swarming. I find they will stand fully as much crowding as the Italians. In the colonies I run for comb I had no swarming, while

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Works Like a Charm.
The Monette Queen-Clipping Device WORKS LIKE A CHARM. With it I have clipped 30 queens, all in one day, when examining my bees. WM. STOLLEY, Grand Island, Nebr.
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I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now. DR. GEO. LACKE, Newburgh, Ind.
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For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 25 cents per pound, CASH; or 28 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly,** for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,

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Queens and Queen-Rearing.—If you want to know how to have queens fertilized in upper stories while the old queen is still laying below; how you may *safely introduce* any queen, at any time of the year when bees can fly; all about the different races of bees; all about shipping queens, queen-cages, candy for queen-cages, etc.; all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know—send for Doolittle's "Scientific Queen-Rearing"—a book of over 170 pages, which is as interesting as a story. Here are some good offers of this book:

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my neighbor with an Italian apiary, was having as high as 10 swarms a day. I had none at all. They have come to stay with me. Most of my swarming is when they supersede a queen.

About selling honey, by all means cultivate the home market. I cannot afford to sell a pound of poor honey, especially to my home customers. Some make the mistake of taking all the first-class honey to the cities and towns, and selling the thin, poor honey at home. I make it a point never to be stingy. If a neighbor drops in, give him a dish of honey to eat. Very often he will say, "That is splendid honey. How do you sell it?" Cultivate his taste for your honey. You will think it very strange when I tell you that buckwheat is the favorite honey here. Give them a taste of light honey, and they will say, "It's very nice but I will wait for the buckwheat." This is a buckwheat section.

J. A. DEWITT.

Ontario, Canada, Oct. 5.

◆

Some Did Fairly Well.

I like the American Bee Journal. Some of our bee-keepers have done fairly well this season; others not so well. After the white clover came into bloom, which is our main stay here, there was a deal of cool, damp weather, with an occasional extremely hot day. Whether that had anything to do with the rather poor yield, or not, I can't say, as I consider myself yet only a novice. We depend somewhat on linden, but there was almost none from that source this season.

WM. MILLER.

Ontario, Canada, Sept. 30.

◆

Selling Honey-Lemonade at Fairs.

Our crops here have all been burnt out by the hot weather; no honey except from the dry-weather honey-vine. I attended the Tri-State Fair here last week, and won all 1st premiums (7) in the bee and honey department, and we took in $55.00 from sales of honey-lemonade. If we would have had hot weather, I believe we would have made $100 on honey-lemonade. We now use a good deal of honey to flavor the lemonade as we find it improves the taste wonderfully. We had six pretty girls to help sell lemonade.

J. C. WALLENMEYER.

Vanderburgh Co., Ind., Sept. 28.

◆

A Correction—The Season.

I find a mistake in my report on page 601. It should read that I *helpt* to judge the honey exhibit, instead of saying that I judged it, etc., as there was another bee-keeper from near Stillwater, Minn. (I can't think of his name), a good judge, too, who helpt, and I think to very good satisfaction to the exhibitors. At least I did not hear of any complaints.

I omitted to say that much credit is due the President of the Minnesota Bee-Keepers' Association, and Superintendent of the Exhibition, Mr. E. P. West, for getting together such a creditable apiarian exhibit in such an off year as this has been in Minnesota, except in a few small localities.

Now that the honey season is over (had a frost Sept. 20), we have had the loveliest weather we could wish for; the past 10 days we have had, and still

BEES FOR SALE.

About 90 Colonies of Italians. Any one wanting to start an apiary cannot do better than to call on Dr. E. Gallup, Santa Ana, Calif., and examine the Bees before purchasing elsewhere. Double sets of Combs in Langstroth-Simplicity Hives, and warranted a superior lot of Bees for business. Correspodence solicited. **Dr. E. GALLUP,**
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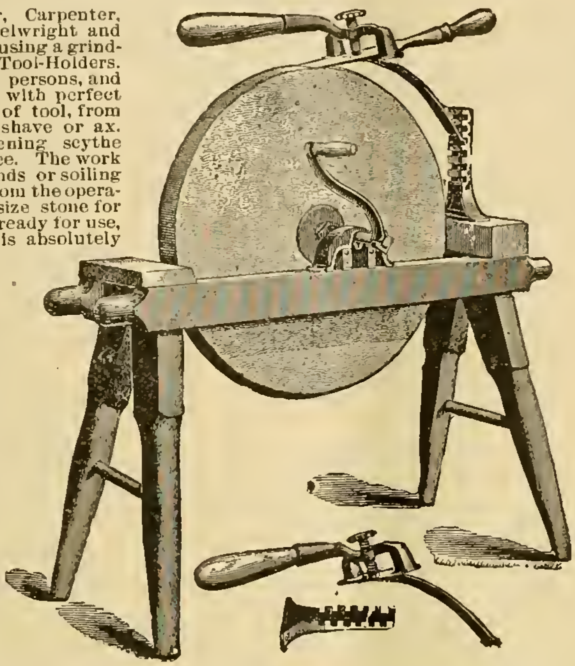

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Every Manufacturer, Miller, Carpenter, Cabinet Maker, Machinist. Wheelwright and Quarryman, Farmer, or any one using a grindstone, should have one of these Tool-Holders. One boy can do the work of two persons, and grind much faster, easier and with perfect accuracy. Will hold any kind of tool, from the smallest chisel to a draw shave or ax. Extra attachment for sharpening scythe blades included in the above price. The work is done without wetting the hands or soiling the clothes, as the water flows from the operator. It can be attached to any size stone for hand or steam power, is always ready for use, nothing to get out of order, and is absolutely worth **100 times its cost.**

No farm is well-equipped unless it has a Tool-Holder. Pays for itself in a short time.

How to Use the Holder.

DIRECTIONS.—The Tool is fastened securely in the Holder by a set-screw and can be ground to any desired bevel by inserting the arm of the Holder into a higher or lower notch of the standard While turning the crank with the right hand, the left rests on an steadies the Holder; the Tool is moved to the right or left across the stone, or examined while grinding, as readily and in the same way as if held in the hands.

For grinding **Round - Edge Tools,** the holes in the standard are used instead of the notches.

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Need We Say More?

All about them in Book on Incubation and Poultry. Sent for 10 cents.

RELIABLE INCUBATOR & BROODER CO., QUINCY, ILLS.

37D17t Please mention the American Bee Journal.

have, bright, clear sunshine, altho the bees are done for this year. We were happy to make and put up the biggest and finest second crop of tame hay; some of it yields two and three tons per acre. This fine weather is also very much desired for threshing and other fall work on the farm, and for getting the bees ready for winter. Some of them have to be fed. We did not have one full week of sunshine, or without rain, all summer until now. Most of the grain was cut and stackt moist.

C. THEILMANN.

Wabasha Co., Minn., Sept. 25.

◆

A Long Honey-Yield, Etc.

Bees are doing well. I past an alfalfa field in full bloom to-day, literally alive with bees. It has been one continual flow of honey from March 1 up to date, for the Italians. They commenced gathering Feb. 1, but did not commence storing until March 1—8 months. They will still gather more than they consume up to Dec. 1.

The excuse almost every one makes is that we do not want any Eastern bee-paper, as it is all filled with the wintering problem. I distributed some extra copies of the American Bee Journal, and one man was here this morning and said; "By George, Dock, I got some good points out of that article of yours that I never had thought of before," I replied, "If you will subscribe for the Bee Journal you will get more, as they are going to come right along." DR. E. GALLUP.

Orange Co., Calif., Sept. 25.

◆

Another Way to Destroy Ants.

Put a few cents' worth of corrosive sublimate into a bottle and pour water upon it. It will soon be ready for use, but as it is very poisonous care must be taken not to get it on the hands, and children should not be allowed to use articles upon which it is placed. If food can be kept on a table, or in a cupboard with legs, poison the legs for several inches from the floor by rubbing them thoroughly with a swab dipt in the solution. If a platform is under the cupboard, poison it entirely around. Keep the bottle carefully corkt in a safe place, and in a few weeks repeat the process if necessary. It is best to prepare the solution yourself, as that which you buy is often too weak to be effectual. After much experience I have never known it to fail.—HELEN S. NORTON, in Michigan Farmer.

◆

A Beginner's Report.

I like the Bee Journal very much, and find it a great help to me, as I am just a beginner in the bee-business. I had

Expert ♦ Testimony.

CHICAGO, Sept. 21, 1897.

To Whom it Concerns:—

Y This certifies that we manufacture "**Yellowzones**" for Dr. W. B. House, Detour, Mich., from his own private formula; and we wish to state that only the purest ingredients that Science has produced, or that money can buy, are used in their preparation. Z

We are acting under instructions from Dr. House to spare no pains or expense in making them the very best preparation that the most modern skill can produce. And from our intimate knowledge of them we state unhesitatingly that "**Yellowzones**" are in every respect a most superior remedy.

We also manufacture "**Zonets**" for Dr. House from especially fine ingredients made by ourselves expressly for these wide-awake little laxatives.

Very truly yours,

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Per Dr. W. C. Abbott, Prop.

If You Keep But One Remedy in the House, It Should Be

YELLOWZONES.

Y You have no doubt read Bro. York's testimony in previous numbers. Yellowzones are used extensively by bee-keepers. They are a general household remedy, indicated in the most severe Neuralgic and Rheumatic pains where other remedies have failed, and in all Fevers, Colds, Headaches, etc., and especially useful in diseases incident to cold weather, and **fully guaranteed** to please you, or **money refunded and no questions askt.** Z

A supply of **Zonets,** the wide-awake little laxatives, with each box.

We will appreciate your acquaintance and custom.

1 Box, 25c; 6 Boxes, $1.00.
Most orders are for dollar lots.

W. B. HOUSE, M. D.,
Drawer 1. **DETOUR, MICH.**

Please mention Bee Journal when writing.

Farm Bee-Keeping.

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Beeswax taken in Exchange for Foundation or any other Supplies.

GUS DITTMER,
AUGUSTA, WIS.

Please mention Bee Journal when writing.

FOR SALE—ITALIAN QUEENS

50 cents, or 3 for $1.00. Address,

Mrs. A. A. Simpson, Swarts, Pa.

41A3t Please mention the Bee Journal.

one colony last spring, and it cast one very strong swarm and gathered 117 pounds of fine honey in pound sections, well filled, and of good quality, besides from 75 to 80 pounds in the two hives for the winter's use.

This fall I bought of a neighbor two colonies in a box-hive. I have had the bees transferred to hives of the dove-tail pattern on Langstroth frames (the same as my other hives), and they are doing nicely.

This has been a good season for honey in this section, and there is still some honey in the fields.

I had never supposed that there were one-fiftieth part as many bee-keepers in the United States as there are.

WILLEY D. BUELL.
Litchfield Co., Conn., Oct. 2.

Bee-Keeping in British Columbia.

This has been a pretty hard year with me, amongst the bees. I have neither a swarm nor an ounce of honey, and have been feeding every night all this month to keep them alive and breeding, and I expect to continue some weeks yet. There has been no surplus with any of the bee-keepers around, that I can learn, altho clover and other honey-plants have been luxuriant. I sent to a New York breeder for three of his famous queens, and they came in splendid condition, and the quickest on record—only 13 days from posting the order in Victoria—something different from the five or six weeks I have previously waited for them

I had some thoughts this year of dropping the American Bee Journal, and patronizing the ——— ———, but it's hard to give it up. It comes so regularly, and is so full of grit.

ERNEST L. ETHERIDGE.
British Columbia, Sept. 21.

What they Say about the Pouder Honey-Jars.

TACOMA, Wash.
WALTER S. POUDER, Indianapolis, Ind.—

DEAR SIR:—Last shipment of jars arrived o. k. There was not one per cent. loss on the entire shipment, and have never had more than two per cent. loss on any shipment from you. I consider your method of crating the best that I have ever seen. Yours truly,

G. D. LITTOOY.

Connecticut.—The fall meeting of the Connecticut Bee-Keepers' Association will be held at the Capitol, at Hartford, Nov. 3, beginning at 10:30 a.m.

MRS. W. E. RILEY, Sec.
Waterbury, Conn.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

For Sale, An Apiary

Of 175 Colonies in A1 condition, with everything necessary for the production of extracted honey. Fine location. Must be sold by January next. Owner has interests which take him East for a time. For full particulars, address **BEE-KEEPER,**
Care J. H. Martin, Secretary California Bee-Keepers' Exchange.
Box 152, Los Angeles, Calif.
Please mention Bee Journal when writing.

See the premium offers on page 650!

HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Sept. 23.—Fancy white 12c.; No. 1, 10 to 11c.; fancy amber, 8 to 9c.; No. 1, 7 to 8c.; fancy dark, 7 to 8c.; No 1, 7c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½ to 4c. Beeswax, 26 to 27c.

The volume of business is small, considering the time of year. Many people are in the city from country points, who have brought their honey with them, and find it difficult to sell at these quotations, and in many instances accept less rather than not dispose of it.

Cincinnati, Ohio, Sept. 30.—Fancy white, 11 to 13c.; No. 1, 10 to 11c.; No. 1 amber, 7 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½ to 4c. Beeswax, 20 to 25c.

Demand for all kinds of honey has been exceedingly slow during September. Perhaps because of a too liberal supply of fruit on the market.

Boston, Mass., Sept 25.—Fancy white, 13c.; No. 1, 11 to 12c.; fancy amber, 9c. Extracted, white, 6 to 6½c.; amber, 5 to 5½c. Beeswax, 27c.

Comb honey is in light receipt, particularly the fancy grades, which is mostly sought for on this market. Demand is GOOD. Beeswax is practically out of the market, the supply being light and demand good at above price.

Indianapolis, Ind., Sep. 24.—Fancy white, 11 to 13c.; No 1, 9 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c. Beeswax, 25c.

Condition of honey market remains unchanged. Many producers have been holding back for better prices but demand is well supplied.

Detroit, Mich., Sept. 25—Fancy white, 11 to 12c.; No. 1 white, 10-11c.; fancy amber, 9 to 10c.; fancy dark, 8 to 9c. Extracted, white, 5 to 5½c.; amber, 4 to 5c. Beeswax, 25 to 26c.

The demand for honey is improving as the season advances. Supply is fully equal to the demand.

Minneapolis, Minn., Sept. 24. — Fancy white, 10 to 11½c.; fancy dark, 9 to 9¾c. Extracted, white, 4¾ to 5½c.

Market well stockt with dark honey. Fancy white clover finds good market at 10 to 11½c. —possibly a fraction more could be realized on really fancy. We would not advise shipments of dark comb or extracted at present.

Albany, N. Y., Sept. 25.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c; fancy dark, 8 to 9c.; No. 1, 7 to 8c.

Comb honey is arriving quite freely and moving off nicely at quotations.

New York, N. Y., Sept. 25.—Fancy white, 12 to 13c.; fair white, 10 to 11c; buckwheat, 8½ to 9½c. Extracted, California, white, 5 to 5½c.; light amber, 4½ to 4¾c.; white clover and basswood, 5 to 5½c.; buckwheat, 4 to 4¼c.; Southern, 48 to 50c. a gallon. Beeswax is quiet at 26c.

Comb honey is now arriving in large quantities, and demand is fair for all grades, principally for fancy and No. 1 white and fancy buckwheat. Extracted California is selling well, while others are neglected, especially Southern in barrels and half barrels.

Milwaukee, Wis., Sept. 24.—Fancy white, 12 to 13c.; No. 1, 10 to 11c.; fancy amber, 8 to 10c. Extracted, white, 5 to 6c.; amber, 4 1-2 to 5c.; dark, 3 1-2 to 4 1-2c. Beeswax, 25 to 26c.

The receipts of honey are very fair, and the quality improving. The supply is not large. Demand is moderate, and the prospects good for fall trade. We are well satisfied that it pays shippers of honey to exercise much care in putting up stock in nice, clean cases and clean, well-ordered sections, and new, clean kegs and barrels for the extracted.

Cleveland, Ohio, Sept. 27.—Fancy white, 13½c.; No. 1, 13c.; fancy amber, 11c.; No. 1, 10½c. Extracted, white, 7c.; amber, 6c.; dark, 5c. Beeswax, 28 to 30c.

The demand for honey is very good.

Buffalo, N. Y., Oct. 8.—Fancy white clover, 1-lbs., is selling well at mostly 10 to 11c., a few stray sales perhaps at 12c. The demand is much better, and moderate, steady shipments should do well. No. 2 grades, 8 to 9c., few possibly 10c.; very poor, dark, etc., proportionately lower. Beeswax, 22 to 26c. We advise shipping only by freight.

San Francisco, Calif., Sept. 22.—White, comb, 1-lbs., 7 to 9c.; amber comb, 4 to 6c. Extracted, white, 4 to 4¾c.; light amber, 3½ to 3¾c.; dark tule, 1¾ to 2¼c. Beeswax, fair to choice, 2⅓ to 24c.

Prices remain at much the same low plane as has been current during the greater part of the past season, but stocks of extracted are being steadily reduced, mainly on European account. Comb honey has been dragging, but will probably meet with more custom in the near future. There is no lack of inquiry for beeswax, but the demand is mainly for export, and at figures named by the buyer.

Philadelphia, Pa., Sept. 27.—Fancy white, 13½ to 14c.; No 1, 12c.; No. 1 amber, 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 4c. Beeswax, 25c.

Honey is now moving freely, with arrivals sufficient for the demand.

St. Louis, Mo., Aug. 9.—Fancy white, 12 to 12½c.; No. 1, 11 to 11½c.; fancy amber, 10 to 10½c.; No. 1, 9 to 9½c. fancy dark, 8 to 8½c.; No. 1, 5 to 7c. Extracted, white, 5 to 5¼c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 24 to 24½c.

The weather so far this season has been too warm for the free movement of honey, but with the present prices on sugar we think there should be a good demand for extracted honey at the above prices. One car of 24,000 pounds sold since our last quotation on basis of above prices. Beeswax finds ready sale at 24c. for prime, while choice stock brings a little more.

Kansas City, Mo., Sept. 25.—Fancy white, 13c.; No. 1, 11 to 12c.; fancy amber, 10 to 11c.; No. 1, 9 to 10c.; fancy dark, 8 to 9c.; No. 1, 8c. Extracted, white, 5 to 6c.; amber, 4½ to 5c.; dark, 4c. Beeswax, 25c.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN,
120 & 122 W. Broadway.

Kansas City, Mo.
C. C. CLEMOMS & Co., 423 Walnut St

Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Cleveland, Ohio.
A. B. WILLIAMS & Co., 80 & 82 Broadway.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.
Mr. Selser handles no honey on commission.

St. Louis, Mo.
WESTCOTT COM. Co., 213 Market St

Minneapolis, Minn.
S. H. HALL & Co.

Milwaukee, Wis.
A. V. BISHOP & Co.

Boston, Mass.
BLAKE, SCOTT & LEE., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. MCCULLOCH & Co., 380 Broadway.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central Avs.

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OUR SUCCESSFUL INCUBATOR will prove it if you use it. Send 6c for new 128 page catalog and study the merits of our machines. Has valuable points on artificial incubation and poultry culture generally. We manufacture a greater variety of Incubators and Brooders than any other firm. Sizes 50 to 800. Prices from $8.00 to $70.00.

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Box 79 DES MOINES, IOWA.
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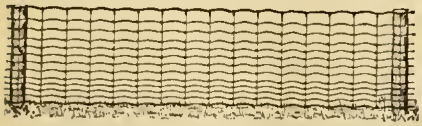

The Lion and the Lamb.
It matters little what kind of animals you confine in adjacent lots, provided the division fence is strictly "stock proof." Here surely, "the best is the cheapest."
PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

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For a limited time we wish to make our readers a **special offer** on booklets on Bees, Poultry, Health, etc. Upon receipt of **75 cents** we will mail any **6** of the list below; and **for $1.25** we will mail the **whole dozen**·

1.	Foul Brood, by Dr. Howard	25c
2.	Poultry for Market and Profit	25c
3.	Turkeys for Market and Profit	25c
4.	Our Poultry Doctor	30c
5.	Capons and Caponizing	30c
6.	Hand-Book of Health, by Dr. Foote	25c
7.	Kendall's Horse-Book	25c
8.	Rural Life	25c
9.	Ropp's Commercial Calculator	25c
10.	Foul Brood, by Kohnke	10c
11.	Silo and Silage, by Prof Cook	25c
12.	Bienen-Kultur, by Newman	40c

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- CHICAGO, ILLS.

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22Atf CHAS. MONDENG, Mgr.

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UNTIL FURTHER NOTICE, we will allow 28 cents per pound for Good Yellow Beeswax, delivered at our office—in **exchange** for Subscription to the BEE JOURNAL, for Books, or anything that we offer for sale in the BEE JOURNAL. **Or, 25 cts. cash.**

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GEO. W. YORK,
CHICAGO, ILLS.

Your Name on the Knife.—When ordering, be sure to say just what Name and Address you wish put on the Knife.

The NOVELTY KNIFE is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed an AMERICAN BEE JOURNAL reminder, and on the other side, name and residence of the Subscriber.

The material entering into this celebrated knife is of the very best quality; the blades are handforged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring steel, and the finish of handle as described above. It will last a lifetime, with proper usage.

Why purchase the Novelty Knife? In case a good knife is lost, the chances are, the owner will never recover it; but if the Novelty is lost, having name and address of owner, the finder will return it; otherwise to try to destroy the name and address, would destroy the knife. If traveling, and you meet with a serious accident, and are so fortunate as to have one of the Novelties, your pocket KNIFE will serve as as an identifier; and in case of death, your relatives will at once be apprised of the accident.

How appropriate this knife is for a Christmas, New Year or birthday present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, a lady to a gentleman, or vice versa, a son to a mother, a husband to a wife, a brother to a sister or a gentleman to a lady—the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

How to Get this Valuable Knife.—We send it postpaid, for $1. , or give it as a Premium to the one sending us **three new Subscribers** to the BEE JOURNAL (with $3.00), and we will also send to each new name a copy of the Premium Edition of the book "Bees and Honey." We club the Novelty Knife with the BEE JOURNAL for one year, both for $1.90.

Any Name and Address Put on the Knife. **GEORGE W. YORK & CO.,**
CHICAGO, ILLS.

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Shiping-Cases and Cans for Honey.
WE GUARANTEE SATISFACTION. What more can anybody do?
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LANGSTROTH ON THE HONEY-BEE, Revised.
The Classic in Bee-Culture—Price, $1.25, by mail.
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Will furnish GLEANINGS one year—24 issues—to a new subscriber, and one Untested Italian Queen, during the months of September and October only, for the price of the journal alone—namely, $1.00. These Queens are catalogued at 75 cents each. By sending us $1.00 you will get the Queen, 75 cents, and the journal for only 25 cents.

If you are already a subscriber and would like to get the Queen, send us $1.00 with a new name for GLEANINGS, and we will send the Queen to you, and the journal to the new name sent.

Remember this offer is good only until Nov. 1.

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BEE JOURNAL

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37th Year. CHICAGO, ILL., OCTOBER 21, 1897. No. 42.

Contributed Articles

Is it Worth While to Have a Tariff or Duty on Honey?

BY CHAS. F. MUTH.

QUESTIONS.—"I notice that the new tariff law doubles the old duty of 10 cents per gallon on extracted honey. Does enough Cuban honey come into our markets to make it worth while to us to have any duty at all? I suggest that C. F. Muth could give some information on this. Perhaps Weyler, the Spanish butcher, has entirely stopt honey-production in Cuba.—CALIFORNIA."

ANSWER.—I think it of the greatest importance to bee-keepers to have a fair protective tariff on importations of honey, because I know from experience that our present low prices would still be lower, even with a tariff of 20 cents on a gallon, even if Butcher Weyler had not destroyed all chances for a honey crop for several years to come.

I was never able to compete with Eastern prices until we tried our hands at importations from Cuba. We received at one shipment 87,000 pounds, and had bought it cheap—about 2 cents a pound below the price we paid to our neighbors for the same qualities. We had it shipt via New Orleans and Ohio and Mississippi steamer, advanced 20 cents a gallon duty, charges to New Orleans and freight to Cincinnati. We had bought for cash, and the shipper had received a more satisfactory price than he ever had before, and offered me his next crop at the same figure.

That season we could, and did, compete with our Eastern competitors, and—last but not least—we offered to our neighbors the same prices we had paid for the Cuban honey, and received all we could handle. My Cuban shipment caused a decline of 2 cents a pound in the price of extracted honey, and if no duty had been on honey, the decline would have been 4 cents a pound, without any doubt about it.

The tariff on honey had been lowered to 12 cents on a gallon during the existence of the Wilson Bill, and the result was that two cargoes of honey two years ago, and two or three cargoes three years ago, supplied the principal manufacturers of this country at prices we could not meet. Take the tariff off of honey, and our bee-keepers would have to take to the comforts of the Chinaman, or quit the business.

I enclose an essay of mine, of 1892, which expresses my idea on the subject. Mr. O. O. Poppleton, of Florida, has been in Cuba, superintending a large apiary, and likely is able to give us more light on the subject of production.

Hamilton Co., Ohio.

[The essay to which Mr. Muth refers, reads as follows:—EDITOR.]

HONEY AND SUGAR COMPETITION.

"Extracted honey seems to have become a staple article in spite of all the obstacles put in its way. The bounty on sugar, with the exclusion of honey, discriminates against the production of bee-keepers, and is an injustice which Mr. McKinley and his committee would not have been guilty of, had they been posted on the subject. It is of vital interest to a large class of industrious and loyal citizens to have honey come in under the same laws protecting the production of other sweets. Bee-keepers must spare no efforts to have justice done them in this respect.

Chas. F. Muth.

"I am in favor of a protective tariff. The West India Islands have a honey harvest of about eight months in a year, while the season on this continent does not exceed four weeks, on an average. If the duty were taken off the import of foreign honey, Cuba alone would swamp our country, and deal a blow at the most vital parts of apiculture.

"Bee-keeping, being a branch of agriculture, which receives the fostering care of our Government, should by no means be neglected. Bee-keepers must spare no efforts to guard against such calamity."

Beginning in Bee-Keeping—Good Advice.

BY C. P. DADANT.

QUESTION.—"Mr. Dadant, would you please tell us whether it is advisable for a beginner to buy bees in the fall, and winter them? and with how many colonies had one best make a start? We have an out-building which faces east, and is well protected from the wind. Would the bees do well in such a place?—CLARA M. BORSTEL."

ANSWER.—We would not advise a beginner to buy bees in the fall, for two reasons. The first is, that wintering is probably the most difficult part of bee-keeping, and it is hardly advisable to buy them just before they have to face the winter; for a beginner would hardly be able to judge of the strength and wealth of a colony. It would therefore be much easier then for a dishonest seller to sell you worthless colonies than in spring, for the bees that go through the winter safely and appear at all strong in the spring, are about sure of a good prospect. In the fall the breeding has stopt, and it is more difficult to ascertain whether they have a good queen, and it takes quite a little experience to be able to know positively that they have enough honey.

The second reason for advising you not to buy bees in the fall is, that there is much more risk in transporting them at that season than in the spring. The combs, being often quite heavy with honey, are more likely to break in transit. Then the bees are probably all old enough to be acquainted with the location, and more of them will be lost when putting them on a new stand—especially if but little distant from their former location—than would be lost in spring.

The proper time to buy and transport bees is about fruit-bloom. At that time they are breeding plentifully, there are young bees hatching daily, and the loss of the bees which may go astray will soon be made up by the constantly-hatching brood.

Then, in the spring, the hives are lighter, the combs containing much brood and but little honey. There is therefore much less risk of breakage.

The beginner who buys bees in the spring usually takes a daily interest in them. In fact, if he or she does not think more about his or her bees than about anything else, they had best leave bee-keeping alone. It is a passion, a fever; and the expression, "bees on the brain"—to speak of a person who loves the pursuit—is only a forcible way of expressing the facts. In the spring you will have numberless chances to enjoy your bees, and your daily or weekly visits will not injure them, especially if you properly attend to their needs, while in the fall you would only be injuring them by disturbing them too often.

To follow the above advice—in regard to when to buy bees—should not, however, be taken as an absolute necessity. You may have a chance to buy bees from some one who must move away, or who needs the money, and may find quite a bargain in thus securing them; but you should not buy them without at least taking the advice of some person who is accustomed to handling bees, and can examine them and inform you as to their prospects and condition. With a little care they may be moved even in the cold of winter without necessarily injuring them to any extent.

As to the number of colonies a beginner should buy at first must depend upon the size of his purse; but in no case would we advise any one to make a purchase of a large apiary unless already acquainted with the pursuit. Of all the branches of farming bee-culture is that which requires the most detailed and specific experience, and all beginners will be apt to make blunders which, on a large scale, would prove expensive. If you begin with from two to ten colonies, you will learn their management in the course of a couple of seasons, and will then ascertain whether you have the adaptability that is needed. You will also make some inventions as we all have done, and will find out, as we have, that those inventions have been made and again discarded by others before you. How many thousands have invented moth-traps—how many have patented them—to find out, after much waste of time, that a moth-trap was never of any use, no matter how nicely it workt!

Is an out-building with an east exposure fit to shelter your bees? Yes, if it is an open shed so the hives may be placed in it and have their entrance unobstructed. No, if it is a closed building and you only expect to keep them in it through the winter. A house-apiary, as these buildings are called, is suitable only if it shelters the hive from the storms and still allows their free flight, and permits at the same time all the manipulations desired to be performed by the apiarist. House-apiaries, though very good, if the hives are not crowded together in them have never been very popular because of the great amount of ground they must occupy and the expense which they entail. But an amateur who keeps bees for pleasure as much as for profit may find them suitable. They are oftener used in the cities where garden-spots are not available, and shed-room is plentiful.

If you like to keep bees let not a bad season discourage you. "If at first you don't succeed, try, try again." There are times when the business is discouraging, indeed, but good seasons soon make up for all the "bad luck." We have been in the habit of figuring on an average yield per colony of 50 pounds annually. This, at five cents per pound, would make a return of $2.50 per colony. For the past six years our average had been much lowered by a succession of bad seasons, but the year 1897 has bravely raised it again to about the old mark.

In the spring of this year we bought an apiary of 75 colonies from a friend who has gone West. We did not want his bees, as we have already more business and more bees than we can attend to properly, but the price was so low ($2.25 per colony) that we concluded to accept, especially as we were actually doing him a favor, for his neighbors had not offered him more than 75 cents to $1.00 per colony, and the bees had to be sold. We placed them in the hands of a young man who had had several years experience, and the season has been so favorable that we have received for our share of the crop 2,900 pounds of honey. The reader may now figure what our investment has brought us, while those bees now are yet as valuable as they were before the crop.

Hancock Co., Ill.

A California Bee-Hive Described.

BY CYRUS C. ALDRICH.

The following is a partial description of the engraving of a bee-hive patented April 7, 1896:

The cover and door of the hive is not shown, as it is not material. The cover is made to telescope down on the hive, while the bottom of the cover rests on the honey-boards. The door shuts the hive at the rear, and is held in place by the Van Deusen fastener. The frames are held in position in the hive by means of screw hooks (No. 110), which hang on the bar on the top of the hive, holes for the hooks being pierced in the bar, and are also spaced for the frames.

A strip of wood 5/16 of an inch thick and ⅝ wide is fastened on the inside of the front of the hive near the top; a similar strip is fastened on the inside of the door near the top, so that when the frames are in place the strips rest on each end of the frames, and when the door is lockt the frames are held rigidly in place. Any frame can be taken out independent of any other, by turning the frame on each side to the right and left, which gives the desired space to remove the frame.

The hive is made to tier up any number in hight, and is especially adapted for comb or extracted honey.

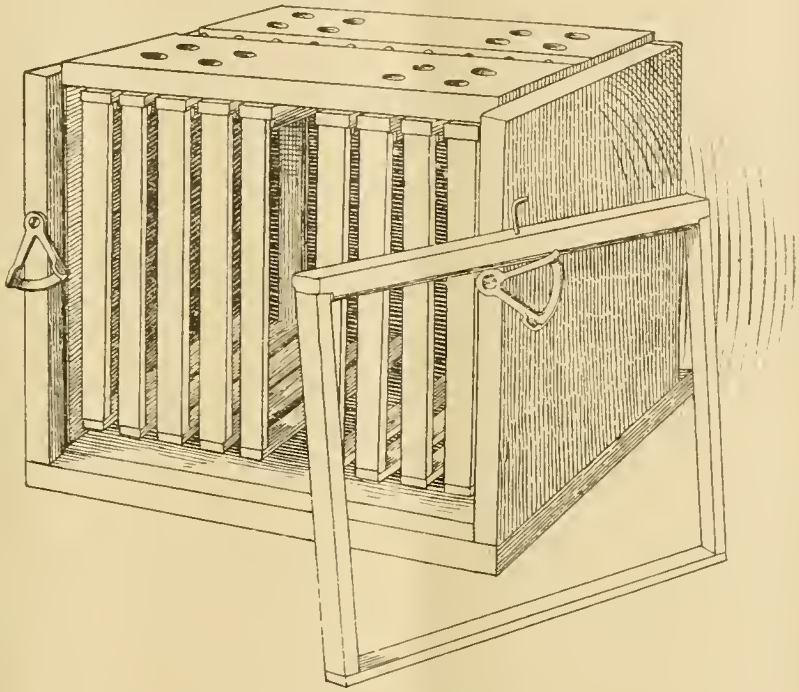
Any sized hive can be used, but the hive that I have used for the past 20 years with the best of success (having at times over 300 colonies in them) is 14 inches square, inside, and 12 inches high, using a frame 10⅛x13¼ inches, outside measure. The advantages of this hive are :

First, a natural brood-chamber ; the cover shutting upon the honey-boards hermetically closes the top of the hive, and prevents all escape of heat from the brood-chamber, enabling a colony to build up faster.

Second, the frames are self-spacing, and when the hive is closed it is ready to be moved to an out-apiary.

Third, ease of manipulation.

Fourth, its adaptability to either comb or extracted honey ; in comb honey there being less burr-comb and travel-stain ; in extracted, ease of handling, and strength of frame, together with the absence of propolis, as the hooks that hold the frames are protected from propolis by the honey-boards.



Hive of Cyrus C. Aldrich, of Riverside Co., Calif.

I invite investigation and comparison with any other hive in use. Riverside Co., Calif.

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Peculiar Conditions—Increase by Dividing.

BY E. S. LOVESY.

We meet to-day many of our bee-keeping friends wearing a broad smile, and with a light heart. I am happy to say that some of them are blest with a moderately-full pocket-book—the result of their own and the efforts of their little friends, the bees. Why, it seems to be getting fashionable for some of our bee-kings, or cattle kings, to take a trip to Chicago, or some Missouri river point, with their own car of honey or stock. Well, I guess it is all right, if they do not soar so high as to forget their poor relatives.

To use a common expression, many of our bees have been doing a land-office business since the jubilee. Many of them averaged about four pounds during the month of August, and in some localities the bees are still bringing in considerable honey. This will continue till the first cold storm. The late honey-flow has been a god-send to our bee-keepers, for the greater portion of our bees did very little the early part of the season ; in fact, we had some very peculiar conditions during last winter and spring. Lart year there was considerable foul brood, and much of the so-called pickled brood. This caused many weak colonies at the beginning of winter. Then we had most zero weather in November, and many of the bees failed to build up, and many colonies that were strong were smothered by being sealed or packt air-tight. The bees sweat to that extent that they were as wet as a dish-rag in the hive. The air becomes foul, and when the temperature gets down low, the bees in this humid condition cannot leave the cluster to seek the honey, and they die of starvation with the honey almost touching them ; when the bee-keeper opens the hives in the spring, he finds his bees dead, and the interior of the hives damp and moldy. The bees sealed up this way are worse off in a chaff hive than they would be in a common box.

The statement that the bees died here last winter for the want of honey is mainly incorrect. We had a very late spring, and as many of the bees came through the winter in a weak condition, and where the bees were not lookt after, they were still further weakened down with spring dwindling. Then, again, while we have had but little foul brood, compared with last year, we have had the so-called pickled brood by the wholesale. I have visited over 2,000 colonies that were affected with it ; in fact, I failed to find one apiary that the bees did not have this disease—some much and some little. I have workt hard with this disease this season, and I have again proven that the salt remedy, which I described in a former article, has again been very effective in getting rid of the disease ; and where our bee-keepers continued the remedy as I askt them to do, and also cleaned out the hives and supplied the bees with comb foundation and a little honey, if necessary, the bees soon got over the disease, and the owners, as a rule, have reapt a bountiful harvest of honey and wax ; while many of those "go-as-you-please" bee-men, where they paid no attention to them, while some of them built up all right many did not, but they dwindled along, and when the honey-flow came on, some of them as fast as the brood hatcht out that the hives might contain the bees filled it full of honey, thus crowding the queen out. Some have died out, while others have given their owners little or no profit, and thus we see the contrast.

Through the conditions that I have named, while the bees in some parts of the country have swarmed more than usual, we have had little or no swarming in Utah. I believe the average has been from about 6 to 10 per cent., and many have not even reacht those figures. One bee-keeper having nearly 300 colonies has had only four swarms. Because the bees have not swarmed, many of our bee-keepers have divided their bees. This is decidedly the best method of increase, if it is properly done, but some get too anxious and overdo it, or they divide them too soon, or before they are strong enough. This doesn't pay; in fact, it may be a losing game. Bees are never dormant, or at a standstill, they either rush forward or backward, for this reason it should never be overdone. It is better to make a swarm from two or more colonies than to weaken them by dividing too much. Of course, this subject is like almost everything else in the bee-industry, it needs study, proper care, and attention. I have followed the dividing method for ten years, and it has always been a success with me, much more so than natural swarming.

Salt Lake Co., Utah.

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No. 4.—Establishing a Standard for Queens.

BY DR. E. GALLUP.

Now, what are the *most perfect* conditions for rearing qeens at swarming-time? I mean as the bees naturally rear them according to nature—a strong and numerous colony of bees, warm weather and sufficient forage coming in to stimulate both bees and queen to the highest state of activity, so that we can hear the roar and hum of the bees all night.

In the above condition a strong colony is a perfect, natural dynamo to manufacture a large amount of electricity or animal magnetism. Activity or animal magnetism is the very life itself. Without it no person or animated matter can live. Right here is where the vim, vigor, or extra amount of vitality is imparted to queens reared in those extremely large colonies that I have before mentioned. If not so, will some one better posted please explain? I need not tell you that bees may be all ready to swarm with sealed queen-cells, and the right conditions are cut off, such as cold weather and extreme drouth, etc., and they destroy their queen-cells and even kill off their drones. Doolittle has gone over all the ground in his book on queen-rearing. Now right here, under the above-mentioned conditions, the queen-breeder may fail, and often does fail, in rearing long-lived queens. In the most of localities in the season of 1896, bad conditions prevailed, such as extreme drouth, etc.. I attribute the cause of so many of my queens received being superseded, to those bad conditions. I had cold, bad conditions for awhile in the spring, but did not attempt to rear queens until the weather changed, hence none of the queens of my own rearing were superseded.

Right here I will answer a question that has been askt repeatedly: Do you think queens reared in the South are as good as those reared in the North? I certainly do. In Florida and other parts of the South they have a continuous and uninterrupted flow of nectar for a longer season than in the North. I have corresponded with queen-breeders in different parts of the South in regard to that very question; their flow may not be, and perhaps is not, so abundant as it is in some parts and seasons in the North, yet they write that it is usually continuous and steady—first-class conditions for rearing good queens. They have another advantage—they can ship young queens earlier than you possibly can from the North.

I had my plans all laid out for experimenting along the line aforementioned, when I had to give up bee-keeping and take up my present occupation. Take a 10-frame Langstroth hive three or four stories high; fill the two lower stories with brood-comb and hatching brood, and use my most prolific queen. In the third story use some hatching brood. Now I would use a queen-excluder between the second and third story, but at that time I had not gotten hold of the idea. Now you can rear your queens on the Doolittle plan; but then, as soon as I had the hive well filled with nursing bees and brood in all stages, I removed the queen and let the bees rear queen-cells, and if they could not gather sufficient forage to stimulate strongly and regularly until the cells were ready to remove. Of course, we could not regulate the weather, but we could have all the other conditions as nearly natural as possible. We might not have the long-lived bees, but on the plan outlined we could soon rear them.

I firmly believe on a similar plan we can improve our bees beyond anything we have at present. If I had the time, I certainly should put my plans in force. What has been done can be done again, if we only go at it in the right manner, with the right spirit, and a full determination to succeed. Do not be afraid of having your colony too strong and numerous; give abundance of ventilation from below, according to the weather.

Last spring, in orange-blossom time, I ran one colony three stories high, and it stored 90 pounds of orange-blossom honey, and if you can show anything nicer flavored I would like to see it. In putting on the third story, instead of raising up the second story, as many recommend, and placing the third story under, I raised one-half the combs and spread them, or alternated a full frame with an empty one in both stories, and unintentionally I got a comb with eggs in the upper story, and on this comb I saved five nice, large queen-cells. Those queens are proving extra-good ones—large, extra-prolific, and grand workers. I did not discover them until they were nearly ready to hatch—in fact, one of them crawled out of the cell in my hand. I made a nucleus of one comb of hatching brood and the adhering bees (this was in the forenoon); in the evening I liberated her, and used a little tobacco smoke.

Right here I will state that I have always succeeded in introducing queens, whether virgins of any age, or fertile, with tobacco smoke.

Well, I expected to have to help that queen with more bees and brood, but she started out so remarkably well that I gave her empty frames as fast as required, and she has filled her hive and a super completed, and has a strong and numerous colony to-day (Aug. 31). She hatcht June 21. Now this was a case where no queen-excluder was used. It was not a case of supersedure, for the old queen is there in the hive yet. It simply happened so without any intention on my part. Who knows but we can rear queen-cells in third or fourth stories of a strong populous colony without queen-excluders? I do not know.

This colony was one that I used for honey, and the one that stored the 90 pounds of orange honey.

Well, I have now said enough to give you my ideas of queen-rearing. Now go ahead and improve on it all you can. But do not run down and deteriorate our race of bees by bad breeding. Build up and improve instead of tearing down. Again I say, *we certainly can improve on the stock we already have.*

Orange Co., Calif.

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The Apiarian Exhibit at the Nebraska Fair.

BY HON. E. WHITCOMB.

The honey show this year is superb, and from the entries of fine alfalfa honey, we are warned that the western part of the State is to be an important factor in the production of fine alfalfa honey.

The annual meeting of the Nebraska Bee-Keepers' Association was held in Honey Hall, on the State Fair grounds on Tuesday and Wednesday evenings. E. Whitcomb was re-elected as President; Aug. C. Davidson, Vice-President, and L. D. Stilson Secretary and Treasurer.

The following resolution was unanimously adopted:

"*Resolved*, That the Nebraska Bee-Keepers' Association request the Board of Directors of the Trans-Mississippi Exposition to appoint E. Whitcomb superintendent of the apiary department of the Exposition."

The following resolution was adopted on the deaths of Mrs. J. N. Heater and Mrs. A. L. Hallenbeck, two honored members of this Association:

"Your committee especially endorse the well chosen words of our President on the death of two of our members—Mrs. J. N. Heater and Mrs. A. L. Hallenbeck. In their death this Association has lost two of our most active and advanced bee-keepers; and while we all mourn the loss of these estimable members, we humbly submit to the will of Him who doeth all things well."

"We especially endorse the action of our President in inviting the United States Bee-Keepers' Union to hold its next meeting at Omaha, Nebr."

The following are the premiums awarded in the apiarian department of the State Fair:

Basswood and white clover comb honey—E. Kretchmer, of Iowa, 1st; G. M. Whitford, of Nebraska, 2nd.

Alfalfa comb honey—Lovesy & Bouck, of Utah, 1st; E. Kretchmer, 2nd.

Sweet clover comb honey—E. Kretchmer, 1st; August C. Davidson, of Nebraska, 2nd.

Comb, fall honey—E. Kretchmer, 1st; Don Westcott, of Nebraska, 2nd.

White clover honey, 20 pounds—E. Kretchmer, 1st; G. M. Whitford, 2nd.

Alfalfa honey, 20 pounds—E. Kretchmer, 1st; Lovesy & Bouck, 2nd.

Sweet clover honey, 20 pounds—E. Kretchmer, 1st; Aug. C. Davidson, 2nd.

Heart's-ease honey, 20 pounds—E. Kretchmer, 1st; William James, of Nebraska, 2nd; Mrs. E. Whitcomb, of Nebraska, 3rd.

Alfalfa extracted fall honey, 20 pounds—Roy Kretchmer, of Iowa, 1st; E. Kretchmer, 2nd.

Sweet clover extracted honey, 20 pounds—E. Kretchmer, 1st; Aug. C. Davidson, 2nd.

Largest display of honey by any one—E. Kretchmer, 1st; Aug. C. Davidson, 2nd; Roy Kretchmer, 3rd.

Exhibit in beeswax—Mrs. E. Whitcomb, 1st; E. Kretchmer, 2nd; Aug. C. Davidson, 3rd.

Display of apiarian supplies—E. Kretchmer, 1st.

Display of honey in marketable shape—E. Kretchmer, 1st; Aug. C. Davidson, 2nd; Mrs. E. Whitcomb, 3rd.

Display of honey candy and cake—Mrs. E. Whitcomb, 1st; Mrs. E. Kretchmer, 2nd.

Honey-vinegar—Mrs. R. M. Lewis, of Nebraska, 1st; Aug. C. Davidson, 2nd.

Display of bees and queens—E. Kretchmer, 1st; Aug. C. Davidson, 2nd.

Extracting honey—E. Kretchmer, 1st; L. M. Lewis, 2nd; Roy Kretchmer, 3rd.

Honey-extractor—E. Kretchmer, 1st; R. M. Lewis, 2nd.

All-purpose single-walled hive—E. Kretchmer, 1st; Don Westcott, 2nd.

All-purpose chaff hive—E. Kretchmer, 1st; L. D. Stilson, of Nebraska, 2nd.

Bee-smoker—E. Kretchmer, 1st.

Display of apiarian supplies—Don Westcott; 1st; Aug. C. Davidson, 2nd.

Surplus honey stored during 1897—C. M. Lewelling, of Nebraska, 1st; Wm. Stolley, of Nebraska, 2nd and 3rd.

County collective exhibit—Don Westcott, 2nd.

Collection of honey-producing plants—Aug. C. Davidson, 1st; Lee Smith, of Nebraska, 2nd; Abraham Cocheline, of Nebraska, 3rd.

Metheglin—Aug. C. Davidson, 1st.

The reports of experimental colonies was of the most satisfactory kind. Mr. C. M. Lewelling reports 184 pounds stored, of which 166 pounds was comb honey. Wm. Stolley reports two colonies, one manipulated entirely for comb honey, and the other for extracted. In the first he reports 84 pounds of comb, and in the second 148 pounds of extracted honey.

Saline Co., Nebr.

BEEDOM BOILED DOWN.

Hardiness of Bees.—Doolittle says that after years of careful observation he thinks there is no difference as to standing severe winters between blacks and Italians.—Gleanings, p. 704.

Drawn Foundation.—Gleanings gives a number of reports favorable to the new deep-cell foundation, but one man reports that his bees workt out common foundation more rapidly than with the deep cells.

Bees Loose in the Mails.—Gleanings gives an account of a case in which bees were loose in a mail-sack in New York city, and repeats the warning that such a careless trick of some queen-shipper may lose us the privilege of sending queens by mail, just as it did once before. We'll be glad to help "drum him out of camp" the fellow that would be guilty of such carelessness.

Does Honey Preserve the Teeth?—Here's a new argument for the use of honey, drawn from one of the foreign bee-journals: Sugar spoils the teeth because it furnishes a favorable field for the multiplication of the microbes that destroy the enamel, while honey—thanks to its antiseptic properties—preserves the teeth by destroying the organisms that attack them. Now who can tell us just how much truth there is in that?

Smoker Fuel.—N. F. Boonhower gives in Gleanings a kind of fuel greatly liked, originating with W. L. Coggshall. Old phosphate sacks that have been washt out by the rain are used, or burlap of the same nature. Roll up lengthwise a sack very tightly, then at intervals of five inches, or about the right length to fit in a smoker, tie cotton twine around it, and chop into pieces with an ax, cutting between the ties. One of such charges will last two or three hours in a smoker.

Bees in Hawaii.—Wm. Thompson, a bee-keeper with 500 colonies of bees all in one apiary on the island of Hawaii, has been making a call at Medina. The area of desirable bee-pasturage on the island is quite limited—a narrow belt along the coast. In this area the honey is of fine quality, is all extracted and shipt to London. The climate is so favorable for the growth of bees that he had to give up the use of perforated zinc, the workers being too large to pass through. And this, even from queens mailed from this country.

Extracting Only Part of the Combs.—At the Buffalo convention J. F. McIntyre said he always found that bees stored less for a day or two after extracting, their time being taken up repairing the breaks and bruises made in extracting. Editor Holtermann, of the Canadian Bee Journal, says: "If this is the case, we have a strong argument in favor of extracting only a portion of the combs of a hive, the bees can then repair and prepare one lot, while going on storing in the other."

A Moth-Trap.—"Australian Yankee," in the Australian Bee-Bulletin, describes his moth-trap. Take a hive-body that can be shut up very closely—all but a 3-inch hole somewhere in the side—put in it two or three old combs containing some pollen, cover up close, and in due course it will contain worms and moths. Turn in a little bi-sulphide of carbon, quickly close the 3-inch hole, and in a few minutes all moths and worms will be dead. Open the hole and leave it for a week or ten days, when a fresh dose may be needed.

Winter Passages.—In the Canadian Bee Journal appears a report from the Ontario Government as to the importance of allowing free passage from one comb to another in out-door wintering. A colony was in a two-story hive with

¼-inch passage between the frames of the two stories, and for three years this was one of the strongest colonies and the first to cast a swarm, raising the question whether it might not be desirable to have a passage cut in the center of each comb. If our Canadian friends will look up the matter, they will find that such passages were used many years ago, but for some reason little has been said about the matter lately. One trouble was to keep the passage open, a tin tube sometimes being used for that purpose. Sometimes, however, it is well to reconsider some of the things that have been allowed to pass into "innocuous desuetude."

Unsheltered Apiary the Best.—A correspondent of the Bucher Belge—an advocate for keeping hives sheltered by buildings—tested the matter for several years, putting half his bees in sheds facing the south, and the rest in open air facing the northeast. The result made him change his views, for entirely alike from the greater convenience of handling his hives in the open, he found they stored more honey than those that were covered. This he attributed to the fact that the bees in the open air started out earlier to work than those in the sheds.

Driving Bees Out of Supers.—A new kink in driving bees out of supers is given by N. F. Boomhower, in Gleanings. The editor vouches for its efficiency. Take hold of one corner of the cloth that covers the supers—use a robber-cloth if no other is present—and while blowing smoke from the smoker by the side of the cloth flap the cloth up and down quite rapidly. This flapping seems to carry the smoke all through the super in such a way that the bees will be driven out much more quickly and completely than by the use of the smoker alone.

Controlling Fecundation of Queens.—In the Australian Bee-Bulletin a writer says he has twice made a success of fertilizing queens by hand, failing all other times. Years ago N. W. McLain, then in charge of an experiment station of the United States, made the same claim, but as no one else ever succeeded in it, nor did Mr. McLain afterward, it was believed that he was somewhat given to romancing. The man who discovers some practical way by which the mating of queens can be controlled will not need a marble shaft to keep his name in remembrance.

Locating Apiaries in France.—The bee-keepers of department de la Meuse, France, were quite stirred up over the attempt to establish a law forbidding the placing an apiary less than ten meters (about two rods) from adjoining lands. The bee-keepers' society made an earnest protest, reciting fully the importance of bee-culture and the damaging effect of such a law not only to apiculture but to agriculture in general, and the law was left in statu quo—leaving bee-keepers free to locate apiaries anywhere. A striking feature in the case is that this bee-keepers' society numbers 800 members, and that in an area less than a twentieth of Illinois.

Winter Stores.—Editor Holtermann advises against feeding by percolation, for fear the stores will granulate in winter. Is there any proof that granulation is worse after percolation than after boiling? Isn't the reverse likely to be true? Only of course it will not do to feed by percolation as late as October, for the bees haven't then time to evaporate and otherwise prepare their food. Granulation has occurred with syrup that has been boiled, and at least one case was reported by a Michigan bee-keeper in which the boiled syrup granulated badly after having acid added to prevent granulation. Probably granulation depends somewhat on the time given by the bees to proper preparation, and this can be more fully given if the food be administered very thin—by percolation equal parts of sugar and water—but it will not do to feed thin syrup late in the season. There seems to be a popular notion that cooking is essential, but has not all granulated sugar been most thoroughly cookt?

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Starting in Bee-Keeping.

I am a young man, a school teacher, and am very anxious to find some employment that may take my spare time, and also be the means to help build up a business that I might follow in the future. I bought, two years ago, two colonies of bees for $5.00, and before long the one weak colony, by reason of worms, went away, and the other workt faithfully all summer, and stored much honey, but did not swarm. The following summer I purchast six more colonies for $12. I have now 17 colonies, having doubled up the weak colonies.

My home, where my bees are located, is in Herkimer county, and my mother owns a small place devoted partially to berries and fruit-trees. Last spring I sowed about 1/6 of an acre of alfalfa clover with a crop of oats, and got a very good seeding.

1. My bees are all in the square-box hives, and if convenient and profitable I would like to transfer them all to movable-comb hives. My grandfather takes care of them for me. Aside from the hives, what will I need in the line of comb to thus make the change? I would like to go into that business as soon as I get a stock sufficient to guarantee me a fair livelihood, for then I may build up my trade to its demands.

2. Please give me an estimate of what will be the cost of comb and hives necessary to make the change? What could I give as a reasonable price for 12 colonies in common boxes? I am sufficiently posted on bees to warrant me quite a pleasure to handle them, and I do it void of any fear. I wish to make this my exclusive business, and practice this motto, that whatever is worth doing at all is worth doing well.

NEW YORK.

ANSWERS.—1. You will not think of doing any transferring before some time next year, probably about the time of fruit-bloom. The most valuable advice that can be given you is to get a good text-book on bees and study it thoroughly between now and then. The cost of the book will be returned to you ten times over before a year, and no one should think of making a business of bee-keeping without studying one or several good text-books. You will find in your book full instruction as to everything needed in transferring, and if there are any points not fully explained or understood, this department will be always open, and your questions will be cheerfully answered.

2. Prices of bees in box-hives vary greatly, and it is hard to tell what you ought to give. Something depends on the strength of the colony, and also on the time of year, a lower price being paid in fall than in spring. If you can get 12 strong colonies in box-hives for $50 in the fall, you will probably do well; but as intimated before, local circumstances may make the price quite different.

Late Feeding for Winter.

Kindly advise me how I am to winter a strong colony of bees taken from a tree Oct. 2, the owner of the tree getting the honey and I the bees, with only three small combs. I intended to feed extracted honey, but was told the bees would not build comb so late in the season. Is it so?

We had a splendid crop of white clover in this (Hunterdon) county, the best in ten years; but the buckwheat crop was a failure, owing to two weeks of constant rain. My bees averaged 65 pounds (nearly all white clover) to the colony; but Mr. Vanderbilt, the old veteran, beat me 12 pounds per colony. I would like to hear from the other parts of Jersey, through the Bee Journal, or don't they take it? If they don't, they had better get it. It is a splendid place for bees here, on account of the abundant crops of clover, but I am afraid the Delaware river, which is here 400 yards wide, cuts off one-half the crop. What is your opinion?—[Don't worry about the river. A little matter of 400 yards won't trouble the bees.—Ed.] G. L. S.

Answer.—Bees don't generally do much comb-building late in the season, but will build if it is needed. You ought to have fed before this, but it isn't too late if you feed right away. If the weather is warm enough for the bees to take the feed, they'll build all the comb necessary. Better warm the honey to be fed, and if it's very thick add a little water while heating, so it will be thoroughly mixt. Don't have more than one pint of water to five of honey, and be sure not to burn the honey. Burnt honey is about as good for winter feed as poison. But it may be fed almost boiling hot.

Likely a Queenless Colony.

I have a colony of bees which were transferred from a box-hive to one of the latest hives about July 25. They had previously swarmed twice, but seemed fairly strong when the change was made. For the past several weeks they have been very inactive, and on examination I found a lack of comb and but few bees. The bottom-board of the hive was littered with small particles of comb, probably from capping. I surmise the lack of prosperity is due to the wax-worm. In fact, I found several small white worms among the powdered comb. Please suggest treatment for the worms, if they are the cause of the trouble. Is it possible that the queen was destroyed in changing hives? If so, would that affect the strength of the colony as indicated above?

"New Member."

Answer.—Instead of its being true that the lack of prosperity is due to the wax-worm, the reverse is more likely true, that the presence of worms is due to the lack of prosperity. In all probability the bees were queenless, became weak and discouraged, and then allowed the worms to take more or less possession. You may have killed the queen in transferring, but it is more likely that they never had a laying queen after swarming. For after a colony swarms, a young queen succeeds to the throne, and it happens sometimes that she is lost on her wedding-trip. If that happens the colony is hopelessly queenless, and it is only a question of time when it will fade away to nothing. The best thing you can do is to unite the bees with another colony, one of the weaker ones, and yet they are of little value on account of their age, especially as so late in the season there is little or nothing for them to do, and they will only help eat up the stores without living long enough to help gather next spring.

Colony Deserting—Prevention of Swarming—Dummies.

1. I have an 8-frame Simplicity hive that had a super on and I took it off, and it was empty. I noticed that the bees had workt well and were a good, strong colony. When I lifted the super off I saw there were no bees in the hive. The frames are well filled with sealed honey, no brood, and not one bee in the hive, and the hive is as clean as a new pin. The brood-chambers with bottom-board weighs 50 pounds, so you see it was well filled. What was the trouble? What did the bees leave the hive for? Did you ever hear of such a thing before?

2. Can you inform me how Mr. Dandant keeps his bees from swarming?

3. What are the dummies spoken of in the bee-papers? How are they used, and for what purpose? Mass.

Answers.—1. In the spring of the year it is not a remarkably unusual thing for a colony to desert its hive, leaving plenty of stores and more or less brood, such colony perhaps always being weak. But the supposition is that the case you mention was during or after the honey harvest. I never before heard of a strong colony deserting its hive during the working season, leaving it full of honey and everything in good condition, and cannot give the least hint as to the reason. I yield the floor to any one who can.

2. The principal reason the Dadants give for the small number of swarms they have, is the size of their frames and brood-chambers. They use the Quinby frame, and their hives have a capacity equal to 12 or 14 Langstroth frames.

3. Take a board the size of a brood-frame, nail on it a top-bar, and you have a dummy. It may be anywhere from an eighth of an inch to an inch thick, and its chief use is to fill up a vacancy in a hive. If a man wants to use only eight frames in a 10-frame hive, and desires to have his bees work in supers at the same time, it will not do to take out two of the frames without putting in something to fill their place, for the bees would at once build in comb to fill the vacancy. So the dummy comes into play. Oftener, however, a dummy is used in a hive which has its full complement of frames. Especially is this the case where frames with fixt distances are used. Suppose you have eight frames in a hive, all spaced at fixt distances, the hive being entirely filled with the eight frames. It will be a difficult thing to get out any of the frames, but if the hive is made wide enough to take in the eight frames and a dummy besides, the dummy will easily be withdrawn, and then it will be an easy matter to take out the frames.

Doubtless a Queenless Colony.

We had one colony of bees in a box-hive and transferred it to a frame-hive last spring. We tied the brood-comb in the frames and the bees seemed to do well for awhile. In August I thought they were not doing well, and on examination I found moths in the old comb, and bees all clustered on two small frames of comb. I did not examine them, but as they seemed to have too much room I placed them in another hive (as this one was not made right) with a division-board, confining them to the two combs, and fed for a week, then lookt at them. They had abandoned the old comb and commenced building on the other side of the hive, so I took out the old, empty comb and placed a division-board next to the frame of new comb and kept feeding. They seemed to carry pollen, and workt well until the last few days they don't seem to be carrying pollen. I examined and find they have no brood, but are storing honey in their new comb. What is the matter? and what shall I do? There are drones. Florida.

Answer.—The indications are that your bees are queenless. I confess to feeling somewhat puzzled to account for their deserting the old comb and building new, unless the old combs were so badly infested with worms that they deserted them entirely. There is probably nothing you can do with them now, for a colony that had become reduced to two combs in August, even if it grew no weaker, would not be worth fussing with. What bees are left might be united with another colony, but they're hardly worth the trouble, for they are probably so old that they will not last much longer.

Bees Killing Each Other.

I received some untested queens June 30, in good condition. I introduced them all right; and they were fine, large queens, and they beat anything at breeding I ever saw. I told my neighbors if the 5-banded queen produced 5-banded workers I wouldn't take five dollars for her. But she didn't do that, but she did produce beautiful 3-banders, and they are hustlers, too, so I would hardly take five dollars for her, tho her bees have one fault—they will kill off all the black bees in their colony, which was a strange thing to me. I was glad of that, for I wanted them all yellow ones; but they didn't stop at that, they got to killing their own bees, and I put an empty super on, and they quit. I took it off again, and they have gone at it again like wild fire. I will have to put on the super again or make two colonies out of it. The trouble is, there are too many bees for an 8-frame Langstroth sized hive, and it is full of honey besides. It is not a case of robbing, as some would think, and they are not diseased, but right in their prime. Tenn.

Answer.—The case is an utter puzzle to me. It does not seem possible that bees would kill off any of their number because of being crowded. Many times colonies that were strong have been so crowded with bees that they could not all get into the hive, and in plenty of cases the combs have become so crowded with honey that the queen had no room to lay, but no one has ever reported in such a case that it resulted in the bees killing off one another. If a hive becomes overcrowded with bees, a swarm is likely to result if at the proper season for swarming, and at other times the bees would merely hang out. If part of the bees are black and part Italian, that ought to make no difference. I wouldn't like to be too positive about the case, but I think close investigation will discover some disease present where workers are killing off their own sisters. If there is no mistake about the addition of more room stopping the killing, and then its starting again when the extra room was taken away, then it is just possible that the greater heat and lack of ventilation might help to make the disease more violent. It is to be hoped that we may hear fully the outcome.

The American Bee Journal
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GEORGE W. YORK, - Editor.

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United States Bee-Keepers' Union.

Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

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Editorial Comments.

Bee-Keeping is the title of Farmers' Bulletin No. 59, just issued by the United States Department of Agriculture, by Frank Benton, M. S., Assistant Entomologist. It contains 32 pages, and appears to have been issued more in the interest of the beginner in bee-keeping than the expert. We say appears, for the reason that it has just come to our desk this minute, and we have not the time to examine it carefully before this number of the Bee Journal goes to press. We hope soon to reduce it somewhat for "Beedom Boiled Down."

◆

The Trans-Mississippi Exposition next year promises to be one of great interest to bee-keepers as well as everybody else. Hon. E. Whitcomb, of Friend, Nebr., has recently been appointed an Honorary Commissioner in charge of the honey exhibit to be made there. No better selection could be made. Mr. Whitcomb is well known to the bee-keeping world, and especially to those of the great and growing West.

Mr. Whitcomb desires to get in communication with all the principal bee-keepers' associations of the country as soon as possible, and would like to have the presidents of such societies send him their names and addresses *at once.* We hope all will comply with this request, and co-operate with Mr. Whitcomb in every possible way. In a letter received from him Oct. 9, he says:

> FRIEND YORK:—I notice that Illinois has made quite an appropriation for the Trans-Mississippi Exposition. Why not the bee-keepers of that State rush in, get your share of it, and put up a nice honey-show? Plans for the honey-house are now being made, and I assure you that it will be the finest ever dedicated exclusively for that purpose in the world. I wish that you would earnestly advocate in the Bee Journal, from week to week, the necessity of every State bee-keepers' association taking hold of this matter, and putting up something that will not only be a credit to their State but to the Trans-Mississippi country. It will be my object to make it as pleasant as possible for all when visiting the Exposition.
>
> Yours very truly, E. WHITCOMB.

What does the Illinois State Bee-Keepers' Association have to say to the above suggestion? Stand up, Pres. Dr. C. C. Miller and Sec. Jas. A. Stone, and do your duty.

◆

The Northwestern Convention program will likely consist almost entirely of the discussion of questions askt by those present. It would be a good plan for each one to write out some question, before leaving home, and bring them. Put them on separate slips of paper, and then when the hat is past, you can drop them in, and each can be discust in its turn.

Don't forget the time and place of the meeting—Wednesday and Thursday, Nov. 10 and 11, at the New Briggs House, northeast corner of Fifth avenue and Randolph street, Chicago.

Also, don't forget to be there.

◆

Bees in a Beer-Keg.—The Kankakee, Ill., Gazette, of Oct. 7, contained the following account of a swarm that chose an empty beer-keg as a place of habitation:

> "In the large oak-trees beautifying Mr. Barton's lawn, the envy of the neighborhood, three empty kegs which once contained a quantity of best brew, have for a number of years given shelter to a thrifty family of squirrels, the older members of which have become so well acquainted with their protector that they promptly answer his call to take tempting morsels from his hand. One Sunday, last June, a swarm of bees flew across the yard, spied an empty keg and immediately served notice on the squirrels to vacate. Throughout the summer the large family labored to collect a quantity of honey. How to get at the sweetness, 30 feet above earth, without being stung, was the problem which Mr. Barton called upon Carl Ring to solve. Mr. Ring may not be a king-bee, but he perhaps deserves the title of the Bee-King of Kankakee county more than any other individual. Without losing any time, Mr. Ring climbed the tree, plugged up the holes of egress and lowered the squirrel-house to the ground. It was heavier than if full of its original contents—47 pounds of delicious honey was removed. Mr. Barton kept the honey and King Ring took the bees. Mr. Barton advises his friends who are fond of honey to fill their trees with squirrel-houses. This is the second time he has been favored in this way."

If only all the beer-kegs in the world could thus be filled with honey, what a blessing it would be to mankind. If less beer were made and drank, there would be more money to spend for honey and other good things that many a poor family must go without. Every honey-producer, as well as everybody else who loves humanity and are self-respecting, should be dead against the whole infernal strong-drink traffic. We are glad to be able to say that so far as we know, nearly every bee-keeper is on the right side on this question.

◆

The California Bee-Keepers' Exchange is thus commented upon by its Secretary, Mr. John H. Martin, in a letter to us dated at Los Angeles, Sept. 19:

> It is a very unwise thing to expect that in one year the California Bee-Keepers' Exchange is going to step before the markets of the world a fullfledged, sound financial organization. Such things must have a development. We have a reputation to establish, membership to gain, prejudices to overcome, enemies outside to encounter, and, also, too true it is, there are enemies inside. These are all concomitants of all new organizations; and if the Exchange survives for a reasonable time, it will gain strength. The intelligent bee-keepers are alive to the benefits to be derived from such an organization, and will stand by it through all discouragements; and if a failure is made in a certain line of work, another method will be employed next time.
>
> If the bee-keepers of California would stand together so as to control over half of the output of honey, there would be

a healthier tone to the prices. Some of our Eastern friends' notably Mr. Doolittle, have imbibed the impression that we are trying to form a trust, in order to put the price of honey to an exorbitant price. That is far from the real object. All we want is a fair, living price. When our best grades of extracted honey are selling for only 3½ cents, the business of producing honey is not remunerative, and a continuation of such low prices will cause quite a number to leave the business. A fair, paying price of say 5 cents per pound is all the bee-keepers of this State ask for, and it can be had only through organization.

What can be done for California through organization can be done for the whole United States through a National organization. It is well known to bee-keepers that the only action necessary in order to market our best grades of honey for table use, and at a fair price, is the proper distribution into those portions of the country where but little honey is used. The problem for a National organization to solve is this of proper distribution.

In closing, I will repeat what I have before stated: "With proper distribution there is not honey enough produced in the United States to go around." J. H. MARTIN.

We regretted to see in some of our exchanges lately a seeming desire on the part of their editors to place discouragements in the way of the successful operation of the California Bee-Keepers' Exchange. Now, we have never felt like doing that. It has always seemed to us to be a splendid undertaking, tho we have felt that it was a pretty big job to carry through. Still, the fruit-growers have been fairly successful in their work of co-operation in marketing, and we cannot see why bee-keepers may not do equally well. The effort is commendable, at least; and instead of doing or saying anything to discourage those who are brave and strong enough to put their shoulders to this new wheel to roll in the interest of bee-keepers, we think that the very least the rest of us can do is to cheer them on, and perhaps later on be able to aid them and ourselves very materially.

◆

Sweet Clover Hay Superior to Red Clover.—Gen. S. D. Lee, President of the Mississippi Agricultural and Mechanical College, in a letter to the office of a periodical called "The Clover Leaf," said this about the value of sweet clover to the general farmer:

"What was the poorest part of my plantation six years ago is now the richest, from the use of melilotus, and the hay is, in my judgment, the superior of red clover for stock."

Sweet clover has been getting some pretty big boosts lately, as a forage plant. This writer *knows* from actual experience that it is all right as a honey-plant, for his bees stored 100 pounds of comb honey per colony, spring count, from sweet clover the past season.

◆

A National Bee-Convention in California.—Mr. Geo. H. Stipp, of California, suggests that the next convention of the United States Bee-Keepers' Union be held in that State, presumably in San Francisco. Here is what he says about it in a letter received at this office:

"Why would it not be well to hold the next bee-keepers' convention in this land of milk and honey? It is a long way to come, but we will try to treat you so well as to make the coming worth the while. We Californians are looking after all the big conventions of the future, and by a combination of the bee-keepers with one of these—as in the case of the Grand Army at Buffalo this year—rates might be secured which would not make the trip prohibitive even to poor bee-keepers in an 'off' year." GEO. H. STIPP.

Of course it is pretty early to talk about the place of holding the national bee-convention of 1898. But the Executive Committee can consider the above suggestion if it so desires. Our individual opinion is, that the annual convention should be held where there will likely be secured the largest and most representative gathering of bee-keepers.

Honey as Food is the name of a 24-page pamphlet, 3¼x6¼ inches, which we are now printing for general distribution among those who should be users of honey. It is just the thing for bee-keepers to hand to every one of their customers, and also those whom they would like to have as customers. It is very handy in size—just right to go into an ordinary business envelope. It contains 10 illustrations, five of which are somewhat comic, and help to make it attractive. There is a blank space for your name and address. About half of the pamphlet was written by Dr. Miller, and then we added thereto many new and valuable honey recipes—for cooking and for medicinal purposes. In all, it makes a neat little pamphlet. Send a two-cent stamp and we will mail you a sample of "Honey as Food."

Prices for quantities, postpaid—25 for 40 cents; 50 for 60 cents; 100 for 90 cents; 200 for $1.50. By express, not prepaid, 500 for $3.00; 1,000, $5.00.

Now let the orders come in, and we will do our best to fill them promptly. Remember, a sample copy is mailed for only a two-cent stamp.

The Weekly Budget.

DR. J. P. H. BROWN, of Richmond Co., Ga., writing us Oct. 7, said:

"This has been a favorable season for bee-keeping in this part of Georgia. The crop of honey has been fine, and the prices have been remunerative."

MESSRS. A. H. WHITMAN & CO., whose advertisement appears on another page, are an enterprising firm with whom we are well acquainted. If our readers want pure teas, coffees, spices, etc., they can't do better than to get them of Whitman & Co. Write to them for their profusely illustrated catalog, and then give them a trial order. They offer some fine inducements to those who will take orders for their goods.

DR. C. C. MILLER reports a crop of nearly 17,000 pounds of comb honey this year, closing the season with about 300 colonies. We think it was the Doctor, who, a few years ago, when many bee-keepers were becoming discouraged, said he had faith that the good years would come again. It seems his faith was well founded. While the Doctor "don't know" many things, he does know that the past season was the best he ever had. And all will rejoice with him in his success.

MR. H. T. CHRISMAN, of Fresno Co., Calif., called on us Tuesday, Oct. 12. He is a young man full of business, push and energy. He and his father had about 300 colonies of bees in two apiaries last spring, increast to about 400, and took 24,000 pounds of extracted honey. Their best honey was sold for 5 cents per pound, and the poorer grades for 3½ cents. They moved all their bees to the alfalfa fields in Kings county, about 60 miles away, and did not lose a single colony in the moving. Mr. Chrisman, Jr., superintended the job, it being his first experience in that line.

THE MARSHFIELD MFG. CO., of Marshfield, Wis., when sending the balance on their advertising in the Bee Journal for 1897, on Oct. 13, wrote:

"We have had a very good year for business, and expect next year will be double. We know the Bee Journal has helpt to do it."

It is very encouraging to us to receive such unsolicited testimonials, and we are always glad to learn that our advertisers are doing well. We wish them all a very prosperous season in 1898.

HENRY ALLEY—the veteran Massachusetts queen-breeder—reports in Gleanings that he lately told an enquirer that "everything in the bee-line worth printing could be found in Gleanings!" That's pretty hard on the rest of the poor publishers of bee-papers. Of course, Alley ought to know, for he is an ex-bee-paper-publisher himself! His opinion was publisht as a "kind word" for our esteemed contemporary. "Kind words" ought to deserve passing along.

P. S.—By the way, Mr. Alley should subscribe for the American Bee Journal and a few of the other bee papers. He could better form an opinion then.

BEE-BOOKS

SENT POSTPAID BY

George W. York & Co.,

Chicago, Ills.

Bees and Honey, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages, and 245 illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold-lettered. Price, $1.00.

Langstroth on the Honey-Bee, revised by Dadant—This classic in bee-culture, has been entirely re-written, and is fully illustrated. It treats of everything relating to bees and bee-keeping. No apiarian library is complete without this standard work by Rev. L. L. Langstroth—the Father of American Bee-Culture. It has 520 pages; bound in cloth.

Price, postpaid, $1.25.

Bee-Keepers' Guide, or Manual of the Apiary, by Prof A. J Cook, of the Michigan Agricultural College.—This book is not only instructive and helpful as a guide in bee-keeping, but is interesting and thoroughly practical and scientific. It contains a full delineation of the anatomy and physiology of bees. 460 pages; bound in cloth and fully illustrated.

Price, postpaid, $1.25.

Scientific Queen-Rearing, as Practically Applied, by G. M. Doolittle.—A method by which the very best of Queen-Bees are reared in perfect accord with Nature's way. 176 pages, bound in cloth, and illustrated. Price, $1.00.

A B C of Bee-Culture, by A. I. Root.—A cyclopædia of 400 pages, describing everything pertaining to the care of the honey-bees. It contains 300 engravings. It was written especially for beginners Bound in cloth. Price, $1.25.

Advanced Bee-Culture, Its Methods and Management, by W Z. Hutchinson.—The author of this work is too well known to need further description of his book. He is a practical and entertaining writer. You should read his book. 90 pages, bound in paper, and illustrated. Price, 50 cts.

Rational Bee-Keeping, by Dr. John Dzierzon—This is a translation of his latest German book on bee-culture. It has 350 pages; bound in paper covers, $1.00

Bienen-Kultur, by Thomas G. Newman.—This is a German translation of the principal portion of the book called BEES OF HONEY. 100 page pamphlet. Price, 40 cents.

Convention Hand-Book, for Bee-Keepers, Thomas G. Newman.—It contains the parliamentary law and rules of order for Bee-Conventions—also Constitution and By-Laws, with subjects for discussion, etc. Cloth, gold-lettered. Price, 25 cts.

Thirty Years Among the Bees, by Henry Alley.—Gives the results of over a quarter-century's experience in rearing queen-bees. Very latest work of the kind. Nearly 100 pages. Price, 50c.

Practical Hints to Bee-Kee-Keepers—by CHAS. F. MUTH. Also contains a Foul Brood Cure and How to Winter Bees. 40 p.; 10 cts.

Why Eat Honey?—This Leaflet is intended for FREE distribution, to create a Local Market. 100 copies, by mail, 30 cts.; 500 for $1.25; 1000, $2.00.

How to Keep Honey and preserve its richness and flavor. Price same as Why Eat Honey.

Alsike Clover Leaflet.—Full directions for growing. 50 for 25 cts.; 100 for 40 cts.; 200, 70c.

Apiary Register, by Thos. G. Newman.—Devotes two pages to a colony. Leather binding. Price, for 50 colonies, $1.00; for 100 colonies, $1.25.

Preparation of Honey for the Market, including the production and care of comb and extracted honey. A chapter from BEES AND HONEY Price, 10 cents

Bee-Pasturage a Necessity.—This book suggests what and how to plant It is a chapter from BEES AND HONEY. Price, 10 cents.

The Hive I Use, by G. M. Doolittle. It details his management of bees, and methods of producing comb honey. Price, 5 cents.

Dr. Howard's Book on Foul Brood.—Gives the McEvoy Treatment and reviews the experiments of others. Price, 25 cts.

Silo and Silage, by Prof. A. J. Cook.—It gives the method in operation at the Michigan Agricultural College. Price, 25 cts.

Winter Problem in Bee-Keeping. by G. R. Pierce. Result of 25 years' experience. 30 cts.

Handling Bees, by Chas. Dadant & Son.—A Chapter from Langstroth Revised. Price, 8 cts.

History of Bee-Associations, and Brief Report of the first 20 conventions. Price, 10 cts

Foul Brood Treatment, by Prof. F. R. Cheshire.—Its Cause and Prevention. Price, 10 cts.

Foul Brood, by A. R. Kohnke.—Origin. Development and Cure. Price 10 cts.

Bee-Keeping for Profit, by Dr. G. L. Tinker.—Revised and enlarged. It details the author's "new system, or how to get the largest yields of comb or extracted honey." 80 p.; illustrated. 25c.

Commercial Calculator, by C. Ropp.—A ready Calculator, Business Arithmetic and Account-Book combined in one. Every farmer and business man should have it. No. 1, bound in water proof leatherette, calf finish. Price, 40 cts. No. 2 in fine artificial leather, with pocket, silicate slate, and account-book. Price. 60 cts.

Green's Four Books, by Chas. A. Green.—Devoted to, 1st, How We Made the Old Farm Pay; 2nd, Peach Culture; 3rd, How to Propagate Fruit-Plants, Vines and Trees; 4th, General Fruit Instructor. Nearly 120 pages. Fully illustrated. 25 cts.

Garden and Orchard, by Chas. A. Green—Gives full instructions in Thinning and Marketing Fruits; Pruning, Planting and Cultivating; Spraying, Evaporation, Cold Storage, Etc. 94 pages, illustrated. Price. 25 cts.

Kendall's Horse-Book.—35 pictures, showing positions of sick horses, and treats on all their diseases. English or German. Price, 25 cts.

Lumber and Log-Book.—Gives measurements of lumber, logs planks; wages, etc. 25c.

Maple Sugar and the Sugar Bush, by Prof. A. J. Cook.—Full instructions. Price, 35 cts.

Grain Tables, for casting up the price of grain, produce, hay, etc. Price, 25 cts.

Capons and Caponizing, by Dr. Sawyer, Fanny Field, and others.—Illustrated. All about caponizing fowls, and thus how to make the most money in poultry-raising. 64 pages. Price, 30 cts.

Our Poultry Doctor, or Health in the Poultry Yard and How to Cure Sick Fowls, by Fanny Field.—Everything about Poultry Diseases and their Cure. 64 pages. Price, 30 cts.

Poultry for Market and Poultry for Profit, by Fanny Field.—Tells everything about the Poultry Business. 64 pages. Price, 25 cts.

Turkeys for Market and Turkeys for Profit, by Fanny Field.—All about Turkey-Raising. 64 pages. Price, 25 cts.

Rural Life.—Bees, Poultry, Fruits, Vegetables, and Household Matters. 100 pages. 25 cts.

Potato Culture, by T. B. Terry.—It tells how to grow them profitably. Price, 40 cts.

Hand-Book of Health, by Dr. Foote.—Hints about eating, drinking, etc. Price, 25 cts.

Bee-Keepers' Directory, by H. Alley.—Latest methods in Queen-Rearing, etc. Price, 50c.

Book Clubbing Offers.

(Read Carefully.)

The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only ONE book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted, see postpaid prices given with the description of the books on this page. Following is the clubbing-list:

1.	Langstroth on the Honey-Bee	$2.00
2.	A B C of Bee-Culture	2.00
3.	Bee-Keeper's Guide	1.75
4.	Bees and Honey [Cloth bound]	1.65
5.	Doolittle's Scientific Queen-Rearing	1.75
6.	Dr. Howard's Foul Brood Book	1.10
7.	Advanced Bee-Culture	1.30
9.	Bienen-Kultur [German]	1.20
11.	Rational Bee-Keeping [Paper bound]	1.75
12.	Thirty Years Among the Bees	1.30
13.	Bee-Keeping for Profit	1.15
14.	Convention Hand Book	1.15
15.	Poultry for Market and Profit	1.10
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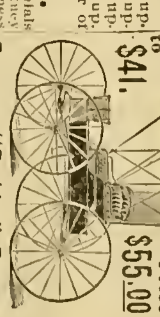

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General Items.

Bees Did Well.

Bees did well in this section this year. Mine averaged from 75 to 150 pounds to the colony.
WM. M. DICK.
Ford Co., Ill., Oct. 8.

Report for the Season.

I have 40 colonies, all kept in square straw-hives. I took 620 pounds of honey this season, having had only 11 colonies last spring.
A. F. LANDSTREAM.
Buena Vista Co., Iowa, Oct. 7.

Bees a Failure Two Years.

From 36 colonies spring count, I got 250 pounds of comb honey this year, and can't sell that for over 10 cents per pound. My bees are in good condition for winter, I think, and perhaps they will do better another year.
THOS. WICKERSHAM.
Whatcom Co., Wash., Oct. 6.

Bees Didn't Do Very Well.

My bees have not done very well this season, owing to hot winds in the spring. I have doubled them this year, and some colonies gave 50 pounds of surplus.

It seems to me some of the writers in the American Bee Journal could use more charity in expressing their views on the different subjects discust in the paper.

If the American Bee Journal came daily it would not be too often to suit me.
R. H. YEARNSHAW.
Sacramento Co., Calif.

From a Former Subscriber.

Several numbers of my old acquaintance—the American Bee Journal—came to my desk yesterday, and I have gone through all of them with avidity. Owing to drouth I dropt out of bee-keeping and dropt the Bee Journal, some years ago, and am surprised to find how few new names appear among its regular contributors. The "Question-Box," for example, seems the same to almost a man, as when my own name appeared in it. True, there is that fellow from the land of the Hottentot and Kaffir, who seems to dip his pen in well-spiced ink, and who has come into our bee-world since I have been out of it. Out of it I have been; but rather perforce, for our seasons have been so exasperatingly bad that it seemed folly to stay in, unless I could move to a better location, which I still hope to be able to do.

From 120 colonies drouth cut me down to 4 for several years; then in 1896, I got up to 7, and got about 75 pounds of heart's-ease, in the fall, which was extra good. This year I got up to 14 colonies, and have taken about 600 pounds of comb honey, mostly white clover. The first super taken off this year was almost exclusively from black locust, (*acasia nigra*), white in color, and the mildest in flavor I have ever tasted—soft, smooth, yet richly sweet.

In one number I see an account of fish being stung to death by a bee. I never saw a fish stung by bees; but yes-

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DR. GEO. LACKE, Newburgh, Ind.
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Queens and Queen-Rearing.—If you want to know how to have queens fertilized in upper stories while the old queen is still laying below; how you may *safely introduce* any queen, at any time of the year when bees can fly; all about the different races of bees; all about shipping queens, queen-cages, candy for queen-cages, etc.; all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know—send for Doolittle's "Scientific Queen-Rearing" — a book of over 170 pages, which is as interesting as a story. Here are some good offers of this book:

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terday the bee-keeper who is penning these lines was most fearfully "stung" by fish. One of my ponds had become so nearly dry that the fish—cat-fish and perch—could be seen; and in order to transfer them to a deeper pond, I waded in mud to the top of my rubber boots, and gathered the lively things in my hands and put them in a bucket. I noticed their sharp spines were very painful, and that blood dropt from my fingers; but having handled such fish from boy-hood, and suffered only a pain similar to that from a bee-sting, I kept at it till done—about four hours—by which time my hands and arms were so swollen and painful that I had to use the felon cure, and soak in lye as hot as I could bear it. My hands are still stiff and sore, but the pain is mostly in the head and small of the back, mainly, perhaps from stooping so much and staying so long in the cold mud. Some bee-keepers are also fish-keepers, and I warn them against too free and careless handling of such slippery, wiggling stock.

I sympathize with Mr. Hotchinson. I did not know of his afflictions when I met him, a few days ago, at the State Fair. WM. CAMM.

Morgan Co., Ill. Oct. 10.

◆

A Droneless Apiary.

It has been a splendid season for bees. Mine produced four swarms per hive, and all except two colonies have filled their hives with honey, and are in good condition to winter. They are hybrids, and large brown bees. These bees have mystified me all summer. I have not seen a single drone during the whole season, dead or alive. I wish some one would give an opinion on this through the Bee Journal. I have workt and fust with bees a good many years, and have carefully watcht them this summer, but I have never had any droneless bees until the past season. R. R. HARRIS.

Erie Co., Ohio, Oct. 7.

◆

Detecting Queenlessness Easily.

I have an old bee-keeping friend who is often spoken of by those who do not belong to the fraternity as a "bee-crank," because his whole time and attention are given to the care and study of bees. But his studies are to some purpose, for he is continually evolving new methods and ways of "doing things," some of which are worth noting. He has been kind enough to give me the benefit of his experience, and a few days ago he told me something about how to ascertain if a colony was queenless without disturbing the frames in the hive. The idea seemed to me such a good one that I determined to share it with the readers of the Bee Journal. He has already tested the plan several times, and claims it works like a charm. His method is as follows:

With a queen-cage in his hand he goes to a colony which he knows has a queen, catches her and puts her into the queen-cage, and lays the cage on top of the frames, where he leaves it for 15 or 20 minutes, or until the cage has become warm and well scented by the queen, when he allows her to return to her family and takes the empty queen-cage as quickly as possible to the supposed queenless colony, where he lays it on the top of the frames and watches the bees

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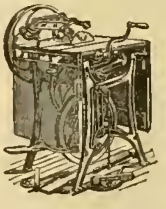

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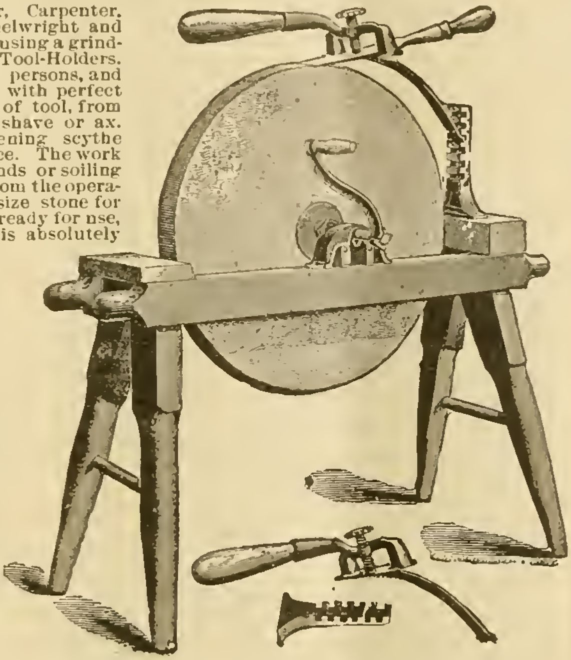

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See the premium offers on page 650!

for results. Should they cluster around it in an eager, friendly way, as if seeking for their lost mother, it is safe to conclude that they are queenless. But if they have a queen they will become angry and excited, and race around and over the cage as if searching for the occupant upon which to wreak vengeance. I would like the opinion of Dr. Miller and other experienced bee-keepers in regard to this plan.

This has been a very poor season for bees in this locality. There were plenty of flowers, but during the greater part of the season they seemed to contain no nectar. During the month of September, however, the golden-rod yielded well, and the bees hustled for dear life, so they now have their hives well filled, besides some surplus, and are still bringing in honey from wild asters, which the frost has not affected.

Chas. E Crawford.

Oscoda Co., Mich., Oct. 3.

Bee-Keeper's Guide—see page 669.

Sweet Clover Ranges for Bees.

In regard to Mr. Kreutzinger's apairy, described in the American Bee Journal for Oct. 7, I understand that it is in the city, or at least in the suburbs. If such is the case, the only range his bees have is practically the sweet clover spoken of. I would like to know how many acres of sweet clover are within reach, and what other resources, if any, his bees have.

There are plenty of worn-out fields here in Tennessee, that can be bought or least at low figures, and I am figuring on getting some sown in sweet clover, both for the honey-resources and the improvement of the land.

Knox Co., Tenn. Adrian Getaz.

[Mr. Kreutzinger's apiary has practically nothing else to work on but sweet clover for the surplus honey crop. Of course there is some white clover, but that blooms about a month earlier than the sweet clover, and no surplus is gotten from that source.

It would be impossible to give other than a very rough estimate of the number of acres of sweet clover within easy range of Mr. K.'s bees. Perhaps 100 acres would embrace all within a radius of two miles of the apiary.

We do not see why the proposed plan of sowing those worn-out fields to sweet clover would not be a good thing for the bees as well as the land itself. But we would suggest that not more than say 10 acres be experimented with first. A lot of good money can very soon be invested in experimenting, and not much of benefit result. So our advice would be to go no faster than you can afford to lose.—Editor].

Disposing of Unfinisht Sections.

My excuse for writing at this time, if any is needed, is to suggest a way by which L. White, of Caldwell Co., Mo., may dispose of some or all of his 1000

Expert ◆ Testimony.

CHICAGO, Sept. 21, 1897.
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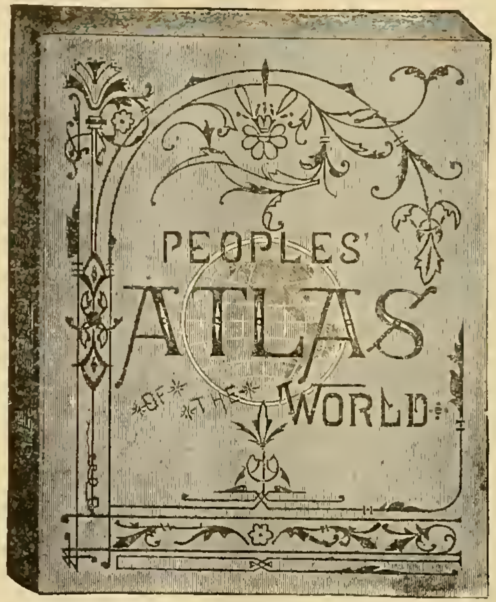

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unfinisht sections. The season here has been very similar to what it was where Mr. White lives, and I find myself with a good many unfinisht sections on my hands. As soon as I found that the fall flow of honey would not amount to much, I went around and lifted every hive. If any one lifted with too much ease, I went to feeding the bees the unfinisht sections, first feeding those that were sealed. After commencing on those that were sealed, I found that the bees emptied them with too much slowness. Then I went to uncapping the honey, and now it is speedily carried below.

I feed in a super over the brood frames. There is yet time for Mr. White to market his unfinisht sections to good advantage. He need not fear that any colony will get too much if he uses hives of only ordinary size. He will find 1000 sections of drawn comb a wonderful help at the commencement of the honey-flow next season, but I would advise him to use Taylor's comb leveler on them. EDWIN BEVINS.

Decatur Co., Iowa, Oct. 11.

Bee-Culture an Agricultural Branch.

I have just returned from our county fair at Broken Bow, where I have been taking premiums on bees and honey, and trying to do a little for the good of the cause. As yet there are few bees in this part of the country, so there is need of awakening people to their own interests.

I take the view of Mr. Abbott, of the "Busy Bee," that bee-keeping need not be confined to experts, but should be a branch of agricultural industry—that there is nothing to hinder the average farmer from keeping his table supplied with honey, even as he expects to keep it supplied with butter. A. L. AMOS.

Custer Co., Nebr., Oct. 4.

◆

A Novelty—To Stop Robbing.

Sept. 30 I was in mine and Mrs. C. Soelch's bee-yard at 1 o'clock, p. m. There was an unusual stir among the bees. Before we were aware, a new swarm came from the east and tried to get in with one of Mrs. Soelch's colonies. What should be done? It meant harm all around. So I closed the entrance of the hive, had removed it about a rod, covered it with a large cloth and put an empty hive in its place. The new swarm went in all right. October 1 I found the old colony in its former place, and the stray swarm besides in the hive, all doing well.

To prevent or stop robbing, I nail two ends of plaster laths on each other to fit the entrance. In the lower lath I make a hole ¾ of an inch toward the hive, and ⅜ on the outside. That is almost a perfect safeguard. In desperate cases I use saw-dust. That makes them crawl and run to save their lives.

H. A. Winter.

Dane Co., Wis.

A Book Recommended by Dr. Gallup.

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In Health and Disease.

By W. E Forest, M. D., 12th Edition, Revised, Illustrated, and Enlarged. This is the greatest and best work ever publisht as a Home Physician, and as

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It makes the way from **Weakness** to **Strength** so plain that only those who are past recovery (the very few) need to be sick, and the well who will follow its teachings **cannot be sick.** It is now in many families the only counsellor in matters of health, saving the need of calling a physician and all expenses for medicines, as it teaches Hygiene and the use of Nature's remedies, **not a drug treatment.**

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are considered, and there is not a curable disease that has not been helpt by some of the "*New Methods*" given here; even those who have been pronounced **Consumptive** have been entirely cured. While for **Rheumatism, Indigestion, Dyspepsia, Constipation, Dysentary, Liver and Kidney Troubles, Catarrh, Emaciation, General Debility, Nervous Exhaustion, Diseases Peculiar to Women,** etc., the methods are sure, and can be carried out at one's own home and with little or no expense.

A Guarantee.

So confident are the publishers of the results, that they offer to refund the money to any one who will try "New Methods" thoroughly, if the book is returned in good condition.

The New Edition

is illustrated with a number of Anatomical plates from the best English work on Anatomy publisht, and others made expressly for this work; contains 300 pages, printed on fine calendered paper, and although the price of the first edition (much smaller in size and without illustrations) was $2.50, we sell this at $1.00, postpaid.

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A. A. Carson, Braintree, Mass.

HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Sept. 23.—Fancy white 12c.; No. 1, 10 to 11c.; fancy amber, 8 to 9c.; No. 1, 7 to 8c.; fancy dark, 7 to 8c.; No 1, 7c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½ to 4c. Beeswax, 26 to 27c.

The volume of business is small, considering the time of year. Many people are in the city from country points, who have brought their honey with them, and find it difficult to sell at these quotations, and in many instances accept less rather than not dispose of it.

Cincinnati, Ohio, Sept. 30.—Fancy white, 11 to 13c.; No. 1, 10 to 11c.; No. 1 amber, 7 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½ to 4c. Beeswax, 20 to 25c.

Demand for all kinds of honey has been exceedingly slow during September. Perhaps because of a too liberal supply of fruit on the market.

Boston, Mass., Sept 25.—Fancy white, 13c.; No. 1, 11 to 12c.; fancy amber, 9c. Extracted, white, 6 to 6½c.; amber, 5 to 5½c. Beeswax, 27c.

Comb honey is in light receipt, particularly the fancy grades, which is mostly sought for on this market. Demand is GOOD. Beeswax is practically out of the market, the supply being light and demand good at above price.

Indianapolis, Ind., Sep. 24.—Fancy white, 11 to 13c.; No 1, 9 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c. Beeswax, 25c.

Condition of honey market remains unchanged. Many producers have been holding back for better prices but demand is well supplied.

Detroit, Mich., Sept. 25—Fancy white, 11 to 12c.; No. 1 white, 10-11c.; fancy amber, 9 to 10c.; fancy dark, 8 to 9c. Extracted, white, 5 to 5½c.; amber, 4 to 5c. Beeswax, 25 to 26c.

The demand for honey is improving as the season advances. Supply is fully equal to the demand

Minneapolis, Minn., Sept. 24. — Fancy white, 10 to 11½c.; fancy dark, 9 to 9¾c. Extracted, white, 4¾ to 5¼c.

Market well stockt with dark honey. Fancy white clover finds good market at 10 to 11½c. —possibly a fraction more could be realized on really fancy. We would not advise shipments of dark comb or extracted at present.

Albany, N. Y., Sept. 25.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c; fancy dark, 8 to 9c.; No. 1, 7 to 8c.

Comb honey is arriving quite freely and moving off nicely at quotations.

New York, N. Y., Sept. 25.—Fancy white, 12 to 13c.; fair white, 10 to 11c; buckwheat, 8½ to 9½c. Extracted, California, white, 5 to 5½c.; light amber, 4½ to 4¾c.; white clover and basswood, 5 to 5½c.; buckwheat, 4 to 4¼c.; Southern, 48 to 50c. a gallon. Beeswax is quiet at 26c.

Comb honey is now arriving in large quantities, and demand is fair for all grades, principally for fancy and No. 1 white and fancy buckwheat. Extracted California is selling well, while others are neglected, especially Southern in barrels and half barrels.

Milwaukee, Wis., Sept. 24.—Fancy white, 12 to 13c.; No. 1, 10 to 11c; fancy amber, 8 to 10c. Extracted, white, 5 to 6c.; amber, 4 1-2 to 5c.; dark, 3 1-2 to 4 1-2c. Beeswax, 25 to 26c.

The receipts of honey are very fair, and the quality improving. The supply is not large. Demand is moderate, and the prospects good for fall trade. We are well satisfied that it pays shippers of honey to exercise much care in putting up stock in nice, clean cases and clean, well ordered sections, and new, clean kegs and barrels for the extracted.

Cleveland, Ohio, Sept. 27.—Fancy white, 13½c.; No. 1, 13c.; fancy amber, 11c.; No. 1, 10½c. Extracted, white, 7c; amber, 6c.; dark, 5c. Beeswax, 28 to 30c.

The demand for honey is very good.

Buffalo, N. Y., Oct. 15.—Small fruits having disappeared, the demand for honey has trebled, and we advise selling it when the trade wants it. Fancy white clover, 1-lbs., mostly 11c. today, a few sales 12c., and some entire lots 10c. No. 2, 8 to 9c.; a few 10c. No. 3, 5 to 7c. Extracted, 4 to 6c., as to quality. Beeswax, 20 to 28c. Ship only by freight.

San Francisco, Calif., Sept. 22.—White comb, 1-lbs., 7 to 9c; amber comb, 4 to 6c. Extracted, white, 4 to 4⅜c.; light amber, 3½ to 3¾c.; dark tule, 1¾ to 2¼c. Beeswax, fair to choice, 22 to 24c.

Prices remain at much the same low plane as has been current during the greater part of the past season, but stocks of extracted are being steadily reduced, mainly on European account. Comb honey has been dragging, but will probably meet with more custom in the near future. There is no lack of inquiry for beeswax, but the demand is mainly for export, and at figures named by the buyer.

Philadelphia, Pa., Sept. 27.—Fancy white, 13½ to 14c; No 1, 12c.; No. 1 amber, 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 4c. Beeswax, 25c.

Honey is now moving freely, with arrivals sufficient for the demand.

St. Louis, Mo., Aug. 9.—Fancy white, 12 to 12½c.; No. 1, 11 to 11½c.; fancy amber, 10 to 10½c.; No. 1, 9 to 9½c. fancy dark, 8 to 8½c.; No. 1, 5 to 7c. Extracted, white, 5 to 5¼c.; amber, 4 to 4½c.; dark, 3½ to 4c. Beeswax, 24 to 24½c.

The weather so far this season has been too warm for the free movement of honey, but with the present prices on sugar we think there should be a good demand for extracted honey at the above prices. One car of 24,000 pounds sold since our last quotation on basis of above prices. Beeswax finds ready sale at 24c. for prime, while choice stock brings a little more.

Kansas City, Mo., Sept. 25.—Fancy white, 13c.; No. 1, 11 to 12c.; fancy amber, 10 to 11c.; No. 1, 9 to 10c.; fancy dark, 8 to 9c.; No. 1, 8c. Extracted, white, 5 to 6c.; amber, 4½ to 5c.; dark, 4c. Beeswax, 25c.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. Burnett & Co., 163 South Water Street.

New York, N. Y.
Hildreth Bros. & Segelken,
120 & 122 W. Broadway.

Kansas City, Mo.
C. C. Clemoms & Co., 423 Walnut St.

Buffalo, N. Y.
Batterson & Co., 167 & 169 Scott St.

Hamilton, Ills.
Chas. Dadant & Son.

Cleveland, Ohio.
A. B. Williams & Co., 80 & 82 Broadway.

Philadelphia, Pa.
Wm. A. Selser, 10 Vine St.
Mr. Selser handles no honey on commission.

St. Louis, Mo.
Westcott Com. Co., 213 Market St

Minneapolis, Minn.
S. H. Hall & Co.

Milwaukee, Wis.
A. V. Bishop & Co.

Boston, Mass.
Blake, Scott & Lee., 57 Chatham Street.

Detroit, Mich.
M. H. Hunt, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
Walter S. Pouder, 162 Massachusetts Ave.

Albany, N. Y.
Chas. McCulloch & Co., 380 Broadway.

Cincinnati, Ohio.
C. F. Muth & Son, cor. Freeman & Central Avs.

Steel Wheels
Staggered Oval Spokes.
BUY A SET TO FIT YOUR NEW OR OLD WAGON
CHEAPEST AND BEST
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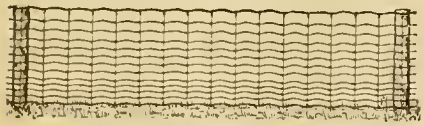

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For a limited time we wish to make our readers a **special offer** on booklets on Bees, Poultry, Health, etc. Upon receipt of 75 **cents** we will mail any 6 of the list below; and **for** $1.25 we will mail the **whole dozen**:

1.	Foul Brood, by Dr. Howard............	25c
2.	Poultry for Market and Profit.........	25c
3.	Turkeys for Market and Profit..	25c
4.	Our Poultry Doctor......	30c
5.	Capons and Caponizing................	30c
6.	Hand-Book of Health, by Dr. Foote..	25c
7.	Kendall's Horse-Book	25c
8.	Rural Life..............................	25c
9.	Ropp's Commercial Calculator........	25c
10.	Foul Brood, by Kohnke..........	10c
11.	Silo and Silage, by Prof Cook..........	25c
12.	Bienen-Kultur, by Newman...........	40c

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GEORGE W. YORK & CO.,
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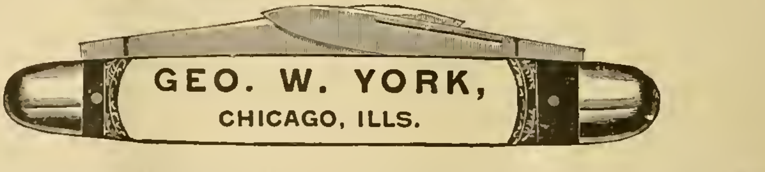
THE "NOVELTY" POCKET-KNIFE!



Your Name on the Knife.—When ordering, be sure to say just what Name and Address you wish put on the Knife.

The NOVELTY KNIFE is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed an AMERICAN BEE JOURNAL reminder, and on the other side, name and residence of the Subscriber.

The material entering into this celebrated knife is of the very best quality; the blades are handforged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring steel, and the finish of handle as described above. It will last a lifetime, with proper usage.

Why purchase the Novelty Knife? In case a good knife is lost, the chances are, the owner will never recover it; but if the Novelty is lost, having name and address of owner, the finder will return it; otherwise to try to destroy the name and address, would destroy the knife. If traveling, and you meet with a serious accident, and are so fortunate as to have one of the Novelties, your pocket KNIFE will serve as as an identifier; and in case of death, your relatives will at once be apprised of the accident.

How appropriate this knife is for a Christmas, New Year or birthday present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, a lady to a gentleman, or vice versa, a son to a mother, a husband to a wife, a brother to a sister or a gentleman to a lady—the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

How to Get this Valuable Knife.—We send it postpaid, for $1. , or give it as a Premium to the one sending us **three new Subscribers** to the BEE JOURNAL (with $3.00), and we will also send to each new name a copy of the Premium Edition of the book "Bees and Honey." We club the Novelty Knife with the BEE JOURNAL for one year, both for $1.90

Any Name and Address Put on the Knife. **GEORGE W. YORK & CO.,**
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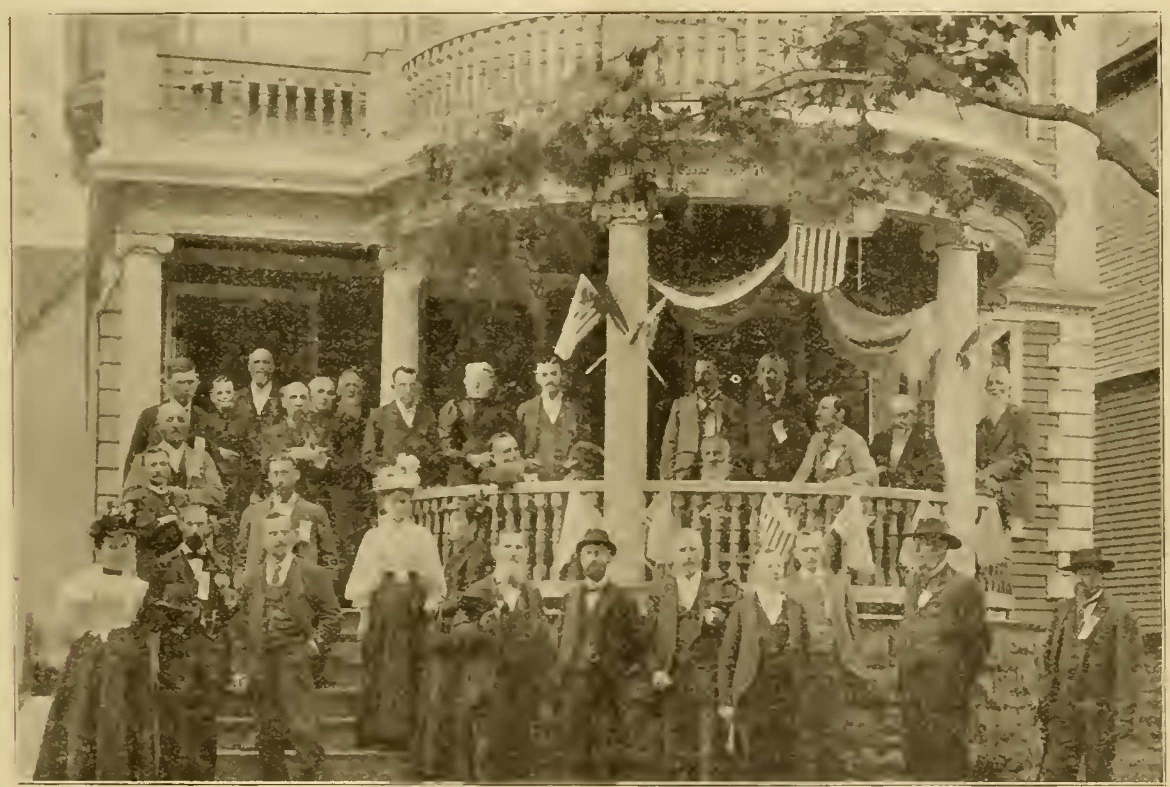
37th Year. CHICAGO, ILL., OCTOBER 28, 1897. No. 43.

One of the Buffalo Convention Pictures.

[At the Buffalo convention of the United States Bee-Keepers' Union, held the last week in August, two photographic views were taken, one of which we show this week on the first page. It was also given in Gleanings for Oct. 1, when Editor E. R. Root had the following to say about it and those who are represented:—EDITOR.]



A Few of those who were at the Buffalo Convention of the United States Bee-Keepers' Union.

This picture was taken in front of the lodging-house where many of us were stopping, and while it shows only a small portion of the convention members, it takes in a list of many of the most prominent bee-keepers of the country. I regret that I am not able to give you the name of each one of the faces there shown, and I can remember only a few of the more prominent ones.

Beginning at the extreme left, the bald-headed gentleman with full face, white tie, and side whiskers, light coat, arms folded, apparently leaning on the steps' railing, is Mr. Wm. Couse, a gentleman who has long been secretary of the Ontario Bee-Keepers' Association. He is one of the leading bee-keepers of Canada.

The gentleman just in front of him, with arms also folded, is Mr. S. A. Niver, or, as he modestly styles himself, "Morton's brother-in-law." Mr. N. has had much experience in selling honey and other articles directly to consumers. Possest with a good stock of humor, and with a "tongue balanced in the middle," he can sell honey like hot-cakes.

The next face that I recognize, and just at the left of Mr Couse, and a little higher up on the steps, with his hand folded in front of him, is Mr. E. T. Abbott, editor of the Busy Bee, of Missouri. Mr. Abbott, as I have before stated, is employed by his State to lecture on rural subjects during the winter. I never heard one of these lectures, but I have seen some of those who have, and they pronounce them as being full of life and interest. His hen story, it is said, fairly captivates his audiences.

Mr. A. is always prominent at conventions, is an eloquent and earnest speaker. Very often independent in his views, he says just what he thinks. If the "other fellow" does not like his style—well; he does not lose any sleep over it. While he may not be given to honeyed words, he has a kindly heart and sympathetic nature.

At Mr. Abbott's left, and just in front of one of the pillars, is Mr. David Coggshall, who, I believe, owns an apiary of some 500 or 600 colonies of bees. Like his brother, W. L., he lives in a beautiful residence—one that would compare favorably with some of the dwellings on the fashionable streets of our cities. Both of the Coggshalls are bright, keen business farmers—at least I judge them to be such from the general thrift and appearance of everything upon their premises. There were no broken-down gates, tumble-down fences, no poor excuses of barns, or houses sadly in need of paint.

At Mr. Coggshall's left is Mrs. Mason, wife of Dr. A. B. Mason, the enterprising secretary of the United States Bee-Keepers' Union. The Doctor is one of those whole-souled, happy, good-natured men whom it is a pleasure to know; and while his face beams all over with smiles, he is quite liable to say something that will hit *you*, if you do not look out. If you do not like it—well, he is too fat and happy, he says, to worry very much about it. Mrs. Mason is one of those quiet, pleasant women whom it is a pleasure to meet. She very often goes with her husband to bee-conventions, and the Doctor says he takes her along to keep *him* straight.

In front of Mrs. Mason, with his arm resting upon the railing, and sitting down, is the kindly face of Dr. Miller. He is another strong convention man. Without him, a convention to me always has something lacking. The Doctor has a happy faculty of throwing in jokes and short pithy speeches that help very much to enliven a convention.

Just back of Dr. Miller, and next to Mrs. Mason, is Geo. W. York, president of the United States Bee-Keepers' Union, and editor of the American Bee Journal. He was again honored with the office, and will probably be our presiding officer at the next meeting at Cincinnati or Omaha, or wherever it may be held. Mr. York is a little chap; but what he lacks in stature is made up in energy and hard work. If he loves his friends he loves them with all his heart. He never believes in doing anything half way.

At Mr. York's left, and in the background, a little to the right of the middle pillar, is Mr. E. A. Wander, of Connecticut. I made his acquaintance at the Buffalo convention, and had the pleasure of his company at Niagara Falls. He is royal good company.

In front of Mr. Wander is Mr. O. O. Poppleton, a bee-keeper of national reputation, of wide experience in the North and the South—one who, while he does not write very much for the journals, yet, when he does write, has something to say. He is a very careful, thoughtful bee-keeper. So careful and conservative is he that he has been engaged to make some experiments for us for a year or so back, in testing various articles that we were about to put on the market, but which we could not do in our Northern climate.

Next to Mr. Wander, and back of Mr. Poppleton, almost too much in the shade to be seen distinctly, appears Mr. P. H. Elwood, of New York. He is a large man, of fine appearance; nor does this exterior belie his real heart. With the possible exception of Mr. W. L. Coggshall, just in front of him, and a little to his left, he owns and operates the largest number of colonies of any bee-keeper represented in this view. In general characteristics he and Mr. Poppleton are a good deal alike—careful, conservative. He is too busy to write much for the journals, and too modest to say much in conventions. But when he does express himself he gives us something to think about.

Just in front of him, with his elbow resting on the railing, is Mr. W. L. Coggshall.

The next face that I recognize on the porch is that of Mr. Miles Morton, of New York, who is the "brother-in-law" of Mr. Niver. Mr. Morton has been for years the local supply-dealer in Tompkins county. During my recent visit to New York State, I called at his place. Like the Coggshalls, he has a beautiful home, and in the rear a nicely equipt shop for making hives, sections, etc. Mr. Morton must be another Dr. Tinker, for it is easy to see he is a born mechanic. Everything turned out from his shop is beautifully smooth and accurate. He is a man of original ideas, and in his quiet way he has been using and advocating certain devices which, in my humble judgment, will in the near future come to the front.

Getting off from the porch, and just in front of the pillar on the right, with his hands behind him, and his hat on, is the Hon. E. Whitcomb, vice-president of the United States Bee-Keepers' Union. He had come all the way from Nebraska. For years he has been one of the active bee-keepers of his State; and the handle to his name shows that he has dabbled more or less in politics. I took a walk with him through the streets of Lincoln, Nebr., and found that he is known familiarly pretty well over the city. He introduced several of us to Senator Thurston, of the United States Senate; and I could not help noting on all occasions that one and all seemed to feel that Mr. Whitcomb was a man of influence.

Just in front of Mr. Whitcomb, and a little to the right, with his back against the railing, and his head between two flags, stands R. F. Holtermann, editor of the Canadian Bee Journal, and apicultural experimenter of the Ontario Agricultural College. Mr. Holtermann, altho a young man, has been honored with the office of president of the North American Bee-Keepers' Association, and has also been its secretary. For one, and possibly two, years he has been president of the Ontario Bee-Keepers' Association, and for years has been recognized as one of the leading bee-keepers of Canada. He is active in conventions, and writes to a considerable extent for the agricultural press.

Just in front of Mr. Holtermann, and a little to his right stands Mr. Frank Benton. This gentleman has probably traveled more miles after big and little bees, past through more real hardships, and has probably seen more of the apicultural world in this and other lands, than any other living man. It was he who accompanied D. A. Jones, and acted as interpreter for that gentleman in a trip through Europe and to the Holy Land after Eastern bees, the result of which trip was the introduction of Syrian and Cyprian bees into this country; and it was Mr. Benton who went through the jungles of India after *Apis dorsata*, studied them in their native homes, and sent back reports at various times in regard to these and other species of bees. He is probably more intimately acquainted with the different bees of the world than any other man living. At the present he is connected with the Agricultural Department of general government, in the Division of Entomology. Mr. Benton is exceptionally well educated, reading and speaking fluently several different languages. He is a fine conversationalist, and a direct and forcible speaker; and were it not for some unfortunate things that have happened at recent conventions (whether he was right or wrong I need not discuss), he would be one of the most popular men in our ranks.

There, I believe I have given all the names that I can remember. There are some faces among those above that seem familiar to me, but at this time and place I cannot locate them, for I am not good at remembering names, especially if they are piled upon at the rate of four or five a minute.

This picture does not by any means represent all the leading bee-keepers who attended the convention at Buffalo; but when I come to review in my own mind the lives of a few of our leading lights, I feel proud of our industry and of the men who represent it; and in my travels among bee-keepers I am more and more convinced of the fact that they are superior men and women. A large number are leaders in some of our best professions. No wonder, then, that they are shining lights in the bee-keeping world. ERNEST R. ROOT.

Honey as Food is the name of a 24-page pamphlet, 3¼x6¼ inches, which we are now printing for general distribution among those who should be users of honey. It is just the thing for bee-keepers to hand to every one of their customers, and also to those whom they would like to have as customers. It is very handy in size—just right to go into an ordinary business envelope. It contains 10 illustrations, five of which are somewhat comic, and help to make it attractive. There is a blank space for your name and address. About half of the pamphlet was written by Dr. Miller, and then we added thereto many new and valuable honey recipes—for cooking and for medicinal purposes. In all, it makes a neat little pamphlet. Send a two-cent stamp and we will mail you a sample of "Honey as Food."

Prices for quantities, postpaid—25 for 40 cents; 50 for 60 cents; 100 for 90 cents: 200 for $1.50. By express, not prepaid, 500 for $3.00; 1,000, $5.00.

Now let the orders come in, and we will do our best to fill them promptly. Remember, a sample copy is mailed for only a two-cent stamp.

* * *

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

Contributed Articles

Producing Only Extracted Honey—Other Comments.

BY EDWIN BEVINS.

It was only a little while ago I bade the readers of the American Bee Journal good-bye for 20 years. The serious charge brought by Mr. Tyrrell, that my practice does not correspond with my preaching, is my excuse for breaking the silence so soon. The atrocious crime of inconsistency I shall neither attempt to palliate nor deny. Like Rev. Emerson T. Abbott, I am not wasting any time in trying to be consistent. That one's practice does not always correspond with his preaching is no new thing under the sun. Is it not the Christian's daily confession and lament, that he has done many things that he ought not to have done, and left undone many things that he ought to have done?

For Mr. Tyrrell's and everybody's information I will say that I am a comb honey producer. I am also a producer of extracted honey. Hence, my opinion *ought* to have some value, whether it has or not. While adhering to my opinion that extracted honey ought to be the only kind of honey produced, I am not unmindful of the fact that until some conditions are changed that ought not to exist, it may be unwise for all the bee-keepers of all the world to go into the production of extracted honey. For instance, California honey, and the honey of some other places, ought not to be put on the market at the price of wheel-grease; but it is.

The honey adulterator ought not to be so numerous and so active as to cause everybody who eats extracted honey to have a suspicion that he is also eating something else not quite so good; but he is. Then honey-eaters ought not to be so devoid of something (I do not care to name) as to eat their honey with the comb, instead of eating it without the comb; but they are. The millennium is not here, and is not anywhere in sight, and until it arrives it may be prudent for some folks to keep on rais—(beg pardon) producing comb honey. If it gets around in my day, I will stop rais—(beg pardon, again) producing comb honey.

Mr. Tyrrell, it seems, has fallen in with my notion about producing all extracted honey, as he says that he has decided to work that way in the future. He may find satisfaction in the use of 8-frame Langstroth hives tiered up for the production of extracted honey, but sooner than use all of that kind myself for that purpose, I think I would kick them into the middle of next week. My extractor will take two Langstroth or two Quinby frames, or four frames as long as the Quinby and six inches deep; and of all the frames I have ever extracted from, I like the six-inch frames the best, whether of Langstroth or Quinby length. I will make them for all the hives I use for extracted honey. Some frames, I notice, are sent out to be used in supers made to take 4¼x4¼ sections. In my very early boyhood days I sometimes fisht for brook trout with a bent pin for a hook. This was because I had not a penny to buy a fish-hook, and I did not know how to make one. I am not fishing for trout any more with crooked pins.

There are one or two considerations that might lead me to an extended use of the 8-frame Langstroth, or, what is about the same thing, the 8-frame dovetailed hive. If I were rearing bees to sell it is likely I would use them. Again, if I wanted to make a rapid increase of colonies in hives of standard depth and length, I would use them. Brood can be found in the upper stories of these 8-frame hives at almost any time from May to October, but it is uncertain about finding it in hives taking more or deeper frames. This brood in the upper stories affords a safe, rapid and easy means of increase without the vexation and uncertainty of natural swarming.

Early in September I received two queens from Eastern breeders. I had not made much preparation for introducing them. On looking around I found two or three frames containing brood in each of two of these upper stories. Then I slipt a queen-excluder between the upper and lower stories, brusht all the bees from the combs in the upper stories, and when the combs were peopled with bees, I brusht the bees into the nucleus-box and introduced the queens by Doolitte's caged-bees plan. The frames of brood and honey were used to hive the bees on. This is a work that can be often repeated all through the summer season; and if anybody has lost as many queens as I have in introducing, he will thank Doolittle a thousand times for his caged-bees plan.

But to return to Mr. Tyrrell. I am not going to get out any writ of injunction to restrain him from using the 8-frame Langstroth hive, and as many of them as he wants to.

Allow me to say to Dr. Miller that I make most of my hives now with ⅜-inch strips attacht to the bottom-boards, and that I have razed some that had entrances cut in the hive-bodies.

A CRITICISM ON HIVE-VENTILATION.

I want to be allowed to find a little fault with the way Mr. Tyrrell ventilates his hives. He says he does it by raising the back end about ¾ of an inch or an inch. If I raised but one end of the hive I would raise the front end. If I were to raise the back end at all I would raise the front end just as much. With some hives, in some situations, raising one end is enough. Other hives need raising all around. The bees come and go with greater comfort and freedom when they have plenty of room at the front. When the back end only is raised it seems to me that a good many bees loaf around the gap to enjoy themselves.

And now, my friends, good-bye for 19 years and about 11 months, unless somebody brings against me some more serious complaint than that my preaching and my practice are not in harmony with each other. It is needless to say that this is not Chapter I of my new book—"A Fool's Errand; or The Mysteries and Miseries of Bee-Keeping."

DEACON ON COMB FOUNDATION.

Since writing the above I have read Mr. Deacon's article on "Comb Foundation," and I feel constrained to break that awful silence of 19 years and about 11 months.

After reading Mr. Deacon's savage attack on the use of comb foundation, "Pennsylvania's" still more savage attack on the bee-space, and Mr. Simmins' mild condemnation of the bee-escape, I began to suspect that modern bee-keeping is all a mistake, and felt like saying, Let us all go back to the use of the box-hive and the log-gum. Since then I have gathered up my courage and have resolved to keep right on using comb foundation, and a good deal of it. The bee-space will continue to do business in my hives, and I shall use more bee-escapes next year than this.

"Come one, come all, this rock shall fly
From its firm base as soon as I."

Mr. Deacon's positive assertion that comb foundation is only the septum or base of the completed comb is so much at variance with everything that I have heretofore read on the subject that I believe I may be excused for asking for further proof. I believe that Mr. Deacon is himself not quite satisfied that he is right. He does not say that he has experimented in a way to convince him of the truth of what he claims. He says that he "fancies" one will be surprised at the results of experiments in this line, leaving us to infer that he may have experimented, but I am sure we would all be better satisfied if he would give us facts and figures. I will take the liberty to ask Mr. Deacon a few questions:

When foundation, especially heavy foundation, is used, is not this septum or base much thicker than the bees would make it if the foundation had not been given? Do the bees leave this septum or base unchanged, and simply add enough of their own wax to raise the cells to the proper height? I am not prepared to believe this. If the foundation is reduced to the usual thickness of honey-comb, what becomes of the portion manipulated by the bees? Is it "drawn out," or is it scraped off and thrown away?

Admitting, for argument's sake, that comb foundation affords nothing but the base, I think every bee-keeper has seen times when this base was of sufficient advantage to the bees in affording them a place to deposit their scales of wax, to repay its cost, and more.

Mr. Deacon makes merry over the claim of a man from Nebraska, that his foundation has wax enough in the partly-raised walls to enable the bees to finish the comb without any additional wax. If the Nebraska man erred, he erred in very good company. In "Langstroth Revised" (page 372) I read: "It is a remarkable fact that the bees 'thin out' their foundation to a certain extent and make it considerably deeper out of the same material. When it has been made *with a thin base and a heavy wall* the bees draw *it out more readily into comb.*"

I am curious and anxious to know what such "idiots" as Charles and C. P. Dadant have to say on this subject.

Decatur Co., Iowa, Sept. 20.

[Yes, you'd better postpone the rest of that Rip Van Winkle nap, Mr. Bevins, for next week will appear an article from the Dadants, in reply to Mr. Deacon's article on comb foundation. We requested the Dadants to write it, and we think after Mr. Deacon reads it *he* will feel like imitating Rip Van Winkle.—EDITOR.]

More Apiarian Observations and Conclusions.

BY "BEE STUDENT."

"THOSE FOOL CAPERS."—On page 497, Mr. Bevins narrates the experience a great many bee-keepers have every year. Somehow they fail to connect the experience of former years, so as to have it available at the right time and place; this, Mr. B. admits on his part, but he should not get discouraged and retire in silence for "20 years," for if there is to be as much progress made in bee-keeping during the next score of years as there has been in the one just past, he must be counted on to do his share of the necessary "capering."

CLOSER ATTENTION NEEDED.—What little I know about bees I have pickt up at odd times during the last 25 years from books, bee-papers, and practice, and now I study the disposition and strength of each colony, and endeavor to know how best to proceed when the time comes to put on supers, and thus avoid giving too much room, or allowing the bees to become crowded. Except at the end of the season I never take off a super without putting another on, and if conditions are favorable for bees to work, all strong, or fairly strong, colonies, have three supers on within 20 days from the opening of the season, and when the fourth one is needed the first one should be well capt ready to be removed; and from 7 to 9 o'clock, while the field-bees are busiest, there will be but few bees in the top super, and very little smoke needed for removing or putting on the escape-board.

BEST SIZE FOR SUPERS.—I work for comb honey altogether, and supers holding but 21 4¼x4¼x1⅞ sections give me better satisfaction than larger ones, and I use them on the 10-frame Langstroth hives by putting a 5-inch board across the rear of the hive during the honey season; and my cubical hives are of proper size for the same supers. I noticed some years ago that during a poor season the fourth or rear row of sections, where 28 were used, would scarcely be toucht, when the other three rows would be filled and capt, and as we have so many poor seasons here to one good one, I concluded to reduce the supers to correspond in space with the requirements of the bees and the seasons, and during the best seasons but three supers are needed at the same time when properly managed. Supers of this size are especially adapted to weak persons and to women bee-keepers.

TAKING SUPERS OFF WITHOUT THE ESCAPE.—I use a three-legged table with top 18x36 inches, and about as high as the top of the hives, on which I put the empty super and a box the size of a super, and taking advantage of the absence of the workers in the early part of the day I use no smoke at the entrance, but lift one side of the cover about a half inch, and smoke gently for 20 or 30 seconds; take off the cover and lift the super high enough to brush the bees from the under side to the super below; place it on the box on the table and cover it; pry the super loose from the hive, and use just enough smoke to drive the bees down and up, out of the *way*, but not out of the *hive*; then place the partly-filled supers (or super, if I am using but two) on the empty super on the table, and put all back on the hive before the bees have time to get in the way, and by deftly handling everything I can take off a full and put on an empty super every five minutes, carry the full super into the honey-house and bringing out an empty one for the next hive.

A super with a loose board for a bottom will answer the purpose of a box, but thin boards tackt on are preferable.

When I have taken off five or six supers I take the first one brought in and put it on a table near an open window covered with wire-screen and furnisht with a house bee-escape, and in removing the sections brush the bees, if any, into the box under the super; set the super aside when empty, and take the box out and empty the bees in front of the hive where they belong. Very few bees will take wing while in the house, if handled gently, for having filled themselves from any uncapt cells they could find, they will be found clustered in one corner of the box waiting to be disposed of. The more completely the honey is capt, the less of bees will be found in the supers, and often I find less than 20 bees in a super so managed.

There is a *best* time for doing all our work if we can only find out when that time is, and practical experience with close observation is our best schooling.

SHADE-BOARDS.—I never get so busy as to forget the comfort of the bees and provide two boards for each hive. They are made of four "shakes" (clapboards) 6 inches wide and 3 feet long, nailed on two cleats 1x2x24 inches. One shade-board will protect the top, east and south portions of the hive, while the other will protect the west side, or end, as the case may be. These shade-boards can be made for 5 cents each, and they are simply indispensable where the mercury registers from 95° to 105° or more in the shade, as it often does here in July, August and September, and the combs in hundreds of hives on this coast have melted down the past summer on account of insufficient shade and ventilation.

Ventura Co., Calif.

Bee-Paralysis—Laying Queens Fighting, Etc.

BY FRED BECHLY.

I see on page 481, that Dr. Gallup recommends exchanging queens to cure paralysis. I can say that I can endorse the Doctor's recommendations. In 1895 my bees were a good deal troubled with the disease, and one colony was particularly bad with it. The queen was very prolific, and kept the hive well filled with brood, but the bees died off about as fast as they hatcht. When opening the hive I found the diseased bees in every corner of the hive—on top of the frames, in the rabbets, on the bottom-board, or any place where they could find lodging. The outside of the alighting-board was usually covered with sick bees, their heads turned toward the hive, their wings spread and shaking, and their abdomens bloated; and on the ground the dead bees created such an odor that I found it necessary to remove them, or cover them with earth to remove the stench they created. Having tried the different methods recommended in the Bee Journal, and failing with all to effect a cure, I destroyed their queen. I took the queen from the most healthy colony I had, and introduced her in the place of the one destroyed. After all the bees from the old queen died the colony became as healthy as any I had.

HIVING NEW SWARMS IN SURPLUS CASES.—This has proved a failure with me. I tried three swarms during our white clover harvest. I caged their queens and hived directly on the sections. They went to work with a will, but on examining later I found that about one-half of the sections contained more or less pollen, and could not be called first-class honey. I have had enough of that kind of work. I prefer my old plan, by hiving on empty frames with a queen-excluding honey-board over the frames, and putting sections filled with foundation on top of that.

LAYING QUEENS FIGHTING.—During the latter part of the '60's, when I got my first Italian queen, I tried to Italinize my bees, but as there were only black bees around here, the young queen mated with a black drone. But the following season I felt better prepared to get my young Italian queens purely mated. As soon as I had queen-cells ready, I took two of these mismated queens out of their hives to exchange for cells. After making the exchange I tried to find out what those queens would do if put within reach of each other. As both queens were in their prime, full of eggs, and unable to fly, I dropt them on top of one of the hives, and drove them toward each other. As soon as one of them recognized the other as a queen, it made a grab at her, and got on her back. I pulled them apart, and made them start even. By guiding one with each hand, I got them to come together facing each other. They clincht like two fighting dogs, rolled over a few times, then spun around like a top, rolled over a few more times, stinging each other, but their motions became slower, and in a short time they fell apart, both dying. I could not, however, see in what part of their bodies they thrust their stings. Their motions were too quick for my eyes to follow.

REPORT.—This has been a good season for honey. I had 23 colonies in fair condition when the white clover harvest opened, and got 1,880 pounds of white clover honey, about 350 pounds of it being comb honey. I have taken since, 520 pounds of fall honey, mostly from Spanish-needle, and have about 1,000 pounds more on the hives. I have increast to 38 colonies, by natural swarming.

Poweshiek Co., Iowa, Sept. 19.

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Some Present-Year Experiences Recalled.

BY N. F. MURPHY.

A few warm days in February brought the bee to its merry hum around the blooming cedar, which awakened and revived in me a desire that had been somewhat reposing since last November, that of peering into the abode of the bee. I found brood-rearing progressing nicely, as a rule, the exceptions being a few weak colonies. Now, the eagerness with which I followed up that inspecting business, as opportunity and weather would permit, can be realized only by the one whose fever has reacht the alarming degree of 6½.

My bees wintered very successfully, even tho a few were afflicted with impotent queens.

When looking after my bees previous to their going into winter quarters last fall, I found one colony exceptionally small—so small that it made a very sorry effort to cover four frames. But my desire to hold my colonies to the highest number caused me to still retain it as one. Seeing they lookt rather too loose and lonely in a 10-frame hive to withstand the coming zero weather, I set about to make it a little more comfortable for them. Immediately I got the chaff, removed all but four nice, heavy frames, took two snug-fitting division-boards and placed them on either side of the four frames, and filled in the outsides thereof with chaff, placed over the frames an oil-cloth, filled in with a few rags on the oil-cloth, put on the cover, and retired, feeling easy.

The other was a select colony from which I desired only drones. It was enclosed in a case as per Prof. Cook, and the two-story Simplicity was then filled around two-thirds its height with chaff. All the frames in the upper story were then removed, and a covering placed on the frames of the lower story (the covering having been trimmed from the remains of an old hemp-sack), used with a feeding stage arranged in the center as per the direction of Frank Benton. The chaff was then filled in, all covered securely, and left just so until along in February, when I rolled back the chaff and began feeding; and the way those bees boomed! Why, Doolittle couldn't have helpt admiring it.

About the middle of March I went down into that colony to see how my drone-larvæ were doing, feeling certain I would find plenty of them. Brood was found in six out of nine frames (worker-brood, I mean), but the drone-comb that hung in the center—my, my! was perfectly empty! This I disliked very much, for I had intended to rear queens extra early, that they might take their flight before the black drones were able to fly. I closed the hive, proceeded in haste to a near-by hive that seemed to be strong, tho only protected by chaff above. That queen had begun depositing eggs very rapidly in drone-cells. I shall remember by this that it is not in every case that extra protection assures the earlier drones.

Having wintered with heavy stores, and being generally hindered from early spring work by the late-lasting cool weather, the bees were permitted to congregate large forces for work when the weather turned warm. The weather opened at last—

When the beautiful birds begin to sing,
All lovers of the beautiful are filled with delight,
By the hum of the bee that's ever on wing
From early dawn till the fall of night.

Yes, everything about the apiary got on a rush, even the little 4-frame colony spread itself.

Desiring increase, and wishing for the most honey possible at the same time, I resolved to try the nucleus system. So, having had, by April 25, five nice queen-cells built and almost ready for removal, I began preparing nuclei of the 3-frame class. Not possessing that cool cellar to deposit them in for a day or two, that they might stay with their combs when returned to the yard, I occupied a house used for the storage of apples, using a 10-frame hive with the front all closed but about three inches, and that covered with wire-cloth, to give air. The weather being warm, and not feeling sure of success, I tried but three of the five in this way, the other two being placed in the yard on stands where they were to remain, with entrances closed till nightfall, when they were made large enough to let in one bee at a time.

The next day I found that almost all of the bees had left my yard nuclei. I went immediately to the house nuclei, feeling sure that nothing worse could have befallen them; but imagine my surprise, upon finding the entrance most crowded with dead bees—*hot*, yes, hot as could be, smothering to death. I then slid the top back far enough to give them one-eighth inch air-space, and then procured a pail and threw a little cold water in at the entrance of each. The next evening they were also placed on stands in the yard.

I found, upon opening, that two-thirds of the bees had smothered to death. The entrances then were fixt as in the case of the first two, and fresh bees shaken into almost all of the five; and the morning following cells were inserted in each of them.

Some one's ready to ask, "What about the robber bees? How did you keep them from ruining your nuclei?" The bees could find plenty to do elsewhere. That's all that kept them from winding up in a tale of empty combs.

When the young queens began to lay, I exchanged places with the older ones (somewhat progressive, you see), taking the old queens from the stronger colonies, thereby breaking up the swarming desire of those colonies for the season.

Extracting then followed at intervals of every two weeks, but nothing of particular note occurred in that line till along in July, when I was extracting for the last time, from the last colony, in the last hour of the day, and assisted by the second to last choice for help. My big, broad-faced brother, the assistant, who could not for a moment think of exposing his countenance to the merry punctures of the bee, insisted on the use of the veil (the only veil, too!) himself. I readily consented, resolving to stand by the smoker for protection. We did exceedingly well, I might say, till we came to the above colony, when my brother approacht, pulled up the top about three inches (it being a Simplicity), when from his grasp it slipt, and back firmly it dropt. Having come up about that time with the smoker, he proceeded to remove the cover, when the idle, angry bees began to emerge therefrom somewhat in the order that a swarm leaves a log-gum—from every available crack and crevice. The trusty smoker was brought immediately to bear on them, when, to my dismay, it failed to fire, because of its lack of fuel. With unprotected face and hands, and a firm but very emphatic, "Here, take the smoker," I made a left quarter turn, and beat a hasty, successful, tho not in movement the most graceful, retreat, not stopping for a moment till I reacht several apple-trees, where, with bent form, I shot among the undermost limbs, and out on the opposite sides, shedding a little hair, a button or two, and of bees not a few. I returned to find that all had quieted down, and my brother peaceably removing the frames from which the honey was to be extracted.

This extracting placed my surplus of this class at about 550 pounds, with about 60 pounds of comb. Having increast the number of colonies to 19, from spring count of 10, with the above amount of honey (and that, too, with but very little assistance from the basswood), I feel that a seasonable business has been done. Bees just now are in fine condition to harvest the aster honey crop, which at present is suffering for rain.

Maury Co., Tenn., Sept. 11.

Langstroth on the Honey-Bee, revised by The Dadants, is a standard, reliable and thoroughly complete work on bee-culture. It contains 520 pages, and is bound elegantly. Every reader of the American Bee Journal should have a copy of this book, as it answers hundreds of questions that arise about bees. We mail it for $1.25, or club it with the Bee Journal for a year—both together for only $2.00.

Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offers on page 685.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

The "Acme" and Chaff Hives.

Do you know anything about Mr. Tefft's Acme hive, lately written up in the Southland Queen? What is your opinion of chaff hives generally? I have no cellar.

G. F. H., Iowa.

ANSWER.—I have never seen the hive mentioned, and know nothing about it except what has been written by the inventor. For out-door wintering probably chaff hives would be a good thing in Iowa, but it might be cheaper in the long run to make a cellar than to adopt chaff hives. Still, it may not be possible to have cellars in your locality, in which case the chaff hive may be advisable.

Several Interesting Questions.

1. What is the largest number of colonies ever successfully kept in a single apiary, at any one time in any part of the world? I suppose you must have it on record.
2. What's the largest quantity of honey ever taken from a colony in one season at any time and place?
3. In what country do bees gather the most honey?
4. How long do Hoffman frames last in hives?
5. When combs are old, I mean get black and hard, is it necessary to renew them?
6. Will bees do better in house-apiaries than in the open air?

JAMAICA.

ANSWERS.—1. Six hundred have been profitably kept in one apiary. I'm not sure whether more.

2. One thousand pounds of extracted honey from one colony were reported a few years ago by a Texas bee-keeper.

3. At a guess I should say it lies between Australia and California as to big crops in a single season.

4. They probably haven't been in use long enough for any one to tell for certain. Judging from the lasting of frames somewhat similar, I should say they ought to last 50 years.

5. No; old black combs are better than new ones. The bees take the old ones in preference whenever a choice is allowed them.

6. Some who have tried house-apiaries say bees do not do as well in them as in the open air. A few succeed with them better than with bees in the open air.

Black Honey—Swarming.

1. From what do bees store black honey? I've taken a good deal this season that is as black as the ink I am writing with.

I started last year (April 16, 1896) with one colony, bought three more, and increast to six. I lost one in January, 1897, from starvation, by being away from home. I bought seven last spring, and have increast to 22, all in good condition. I have 16 colonies of Italians and 6 of blacks. I produced my first section honey this year, and sell it at 15 cents per single pound, or two for 25 cents.

2. I have a colony to which I introduced an Italian queen April 3, 1897. I think it did fairly well, but the bees never did anything to speak of in the sections, but got the swarming fever just the same, and swarmed May 29, June 1, June 3, again June 4, and I returned them to the parent hive; Aug 5, and I returned them; Sept. 9, and I returned them. What caused them to swarm so much, and so late in the season?

This is my first year with Italians. I have never had over three swarms with blacks, and none later than June 15 or 20.

MISSISSIPPI.

ANSWERS.—1. It may be honey-dew, which is perhaps darker than any other honey.

2. It is hard to give a reason for all the things that bees do, but there may have been nothing in the case you mention except a very strong and prosperous colony with an unusually good honey-flow. It is hardly to be wondered at that little was done in the sections, considering the amount of swarming. The number of swarms was more than the average, but still there was nothing very remarkable, for sometimes a colony will send out a prime swarm and then five or six after-swarms, while yours sent out only four after-swarms. It is unusual to have the first after-swarm come out only three days after the prime swarm, as was the case with your bees, but there may have been delay in the issuing of the prime swarm. The swarm issuing Sept. 9 is not at all unusual, the bees simply becoming strong enough to swarm, and circumstances being favorable.

BEEDOM BOILED DOWN.

Stingless Bees.—The Brasilianische Bienenpflege reports that these little vixens, only about one-fourth as large as common bees, sometimes attack the latter in their hives and drive them out. Perhaps we ought to be thankful that the attempt to introduce them into this country has never been a success.

Spacing of Combs.—M. Devauchelle says that bees left to themselves space their combs at 36 millimeters (1.42 inches) from center to center. Others say 1.5 inches, and still others 1.375 or less. Now where does the truth lie? Do the bees have a different rule in different climates, or is it true that they are by no means uniform in their work, spacing sometimes at one distance and sometimes at another? We wonder if some one won't rise and suggest that "locality" has something to do with it?

Ringbarking.—Australian bee-keepers have a trouble that we don't have to contend with on this side of the great mud-ball. It is *ringbarking*. As nearly as can be made out by Yankee, from the Australian Bee-Bulletin, there are public lands that are used for grazing, and in order to improve the pasturage on these lands for cattle the grazers deaden the trees by cutting out a ring of bark. But these trees—white box, yellow box, iron bark, white gum, box, apple tree, stringybark, red gum and many others—are the principal sources of Australian honey, hence the loud complaint of the bee-keepers against the practice of "ringbarking."

A Transferring Kink.—A little kink somewhat out of the ordinary is given by the editor of Brasilianische Bienenpflege. Let the operation begin at a time of the day when bees are flying strongest. Set the new hive on the old stand without frames, the entrance as nearly as possible where the entrance of the old hive was. Cut out of the old hive a piece of comb, preferably with brood in it, and lay it temporarily on the bottom of the new hive. The field-bees will return from foraging and enter the new hive, and when the old hive has thus become well depopulated, cut out the combs and brush off the bees without any driving.

The New Drawn Foundation.—Very strong objections to drawn foundation were made in the Progessive Bee-Keeper, Editor Leahy claiming that its use would ruin the comb honey trade because of the vile character of beeswax used in its manufacture, altho others seemed to think if the material were so objectionable in drawn foundation it should not be used in the ordinary foundation, either. Now that reports of trials have come in, the majority of them are favorable, altho a few are unfavorable. Perhaps failures are not as fully reported as successes. There is a wide variation in the reports. Some say the drawn foundation is a great gain in rapid work, and the finisht product is as good, if not a little better, than that built entirely by the bees. Others say there is little or no gain by the use of drawn foundation, but the product is all right. At least two who have tested it say it gives a fishbone decidedly objectionable. One of these is G. M. Doolittle, one of the editors of the Progressive. He had been very hopeful as to the matter, but found his bees did not view it in the same light. They made faster work with the ordinary foundation, and the drawn foundation gave a tough fishbone. He attributes the trouble to the flat bottoms of the cells, together with being used at a time of poor honey-flow. While the flat bottom in ordinary foundation is changed to the form of the natural base, it seems the bees cannot perform the same work satisfactorily with the high wall, so when the flow is poor, and they have plenty of time, they make some attempt to change the form of the base by filling in the corners with wax. Mr. Doolittle is still hopeful, however, as the drawn foundation with natural base is promist, and he is "of the opinion that something of value may come out of this high-cell-wall foundation." The other editor, however, seems to have lost all hope, or rather all fear, for what he says upon the subject has for its heading, "The Passing of the Deep-Cell Foundation." In reply to his inquiries he has found no one who has had better results than with ordinary foundation, "and all admit that it is tough and leathery."

In the same number of Progressive, that racy writer—Somnambulist—throws upon the subject a side-light that is something startling, if not confusing. This year he made it a point to use less foundation than any previous season, never deeper at any point than one inch. He says, "A friend, and a *good* friend, in sampling my fancy honey, said 'twas fine, but he had one objection, thought there had been *too much foundation used*........But, really, my honey is 'much troubled' with that thick septum, regardless of the fact that there was less foundation used than *ever* before." So there you are, and maybe there's a good bit yet to be learned about the fishbone business.

Danger from Smoke.—Herr Guenther, in Lpzg. Bztg., reports a case in which the bees were smoked too heavily, and in consequence balled their queen. The queen was caged, and could only be releast two days later. It is well to heed the warning not to use too much smoke, but there may be some question whether caging the queen was an actual necessity. A good many times a colony becomes excited and balls its queen, but if left to itself will the queen not generally be freed in a short time without any caging? Dr. Miller has many a time seen bees ball their own queen when excited, but he always closes the hive up quickly and leaves the bees to themselves, and the next day finds the queen laying all right.

Honey as a Laxative.—In olden time the good effects of honey as a remedial agent were well known, but of late little use is made thereof. A great mistake, surely. Notably is honey valuable in constipation. Not as an immediate cure, like some medicines which momentarily give relief only to leave the case worse than ever afterward, but by its persistent use daily, bringing about a healthy condition of the bowels, enabling them properly to perform their functions. Many suffer daily from an irritable condition, calling themselves nervous, and all that sort of thing, not realizing that constipation is at the root of the matter, and that a faithful daily use of honey fairly persisted in would restore cheerfulness of mind and a healthy body.—Le Progres Apicole.

Can Bees be Made to Swarm?—Vogel says no, in Noerdlinger Bienen-zeitung. First he tried a strong and disagreeable odor. The workers returning from the field seemed surprised, but the colony soon became accustomed to it. He put sealed queen-cells in a very strong colony. A few hours later he saw the queen throw herself with fury on them, tear them open and sting the occupants. Then he tried crowding. During the swarming season he crowded a strong colony into as small a space as possible. In the afternoon they hung out, and continued so 15 days with no preparation for swarming, ne'er a queen-cell. Finally he called the sun to his aid. A strong colony was driven out of its hive and lodged in a watering-pot. Next day it was put in the sunniest place in the garden. Toward noon it came out, sailed high—then returned. Same result at each attempt to swarm. So he thinks the bee follows its instinct, and cannot be forced by man.

Interpreting Honey-Grading Rules.—Gleanings says it is really amusing to see the way different people interpret the same grading rules. J. T. Calvert, their business man, sent grading-rules to a number who had shipments to send, and he says the shipments represented to be graded by those rules are a study. One man's A No 1 grade will show up better than another's fancy, altho probably both attempted to follow the rules honestly. Gleanings has faithfully tried to have grading rules adopted and *followed*, but the outcome of it all doesn't prove very satisfactory, for they have decided they must have samples of all they buy. Mr. Calvert puts the thing in a nutshell when he says: "It seems to be next to impossible to make a set of grading-rules that shall be sufficiently simple, and at the same time explicit enough to be so correctly understood that a mixt lot of honey would be graded practically the same by every bee-keeper who should undertake it."

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Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

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Editorial Comments.

A Baby Girl arrived at "ye editor's" home last Sunday afternoon—Oct. 24. It is our present intention to keep her as long as she will stay. Both she and her mamma are getting along nicely, we are thankful to be able to say.

◆

The Illinois State Fair Honey Exhibit was the best we had seen since the one at the World's Fair, in 1893. While the number of exhibitors was not large, the quantity and variety of honeys shown was good. We noticed that the apiarian corner of the gallery of the great Dome Building was an attraction that nearly everybody who attended the Fair was careful not to overlook.

Mr. Chas. Becker's exhibit showed the greatest improvement over that of last year. We predicted then that he would be a hard man to compete with this year, and we were not far from the truth in so saying. Mr. Becker also showed honey-plants.

Messrs. Jas. A. Stone & Son this year also outdid their exhibit of last year, when they showed mostly granulated extracted honey, and beeswax in fancy forms. This year they had a fine exhibit of liquid extracted honey, and even more fancy and interesting beeswax forms. The son, Percy, is quite an expert at moulding beeswax into novel and attractive shapes.

Mr. Geo. W. Poindexter, of DeWitt Co., made a good start this year. Especially should be mentioned the unusual exhibit of a log-cabin home, made entirely from honey, which was described as follows on page 601:

> In size it is about one foot in height and perhaps a foot square. The house has the old-fashioned roof, with the chimney for the fire-place running up the side. The one door swings ajar, allowing one a view of the interior of the hut. He also has made of honey proportionately in size to the log-cabin, an exact reproduction of his home and apiary. From honey is made his house, and scattered all around it, also made from pure honey, are the bee-hives. Placed here and there, just thick enough to give the apiary yard a pretty appearance, are artificial flowers. A fence made out of comb foundation encircles the apiary and house, and the entire thing is enclosed in a large glass frame separate from the log-cabin, which is arranged in a frame alone.

At next year's Fair we will expect to see Mr. Poindexter pretty near the top of the list in the line of a complete exhibit of comb and extracted honey.

Mr. W. Z. Hutchinson, of Michigan, was there as usual with his excellent exhibit, composed of comb and extracted honey, beeswax, bees, and honey-plants. Mr. Hutchinson is an old hand in the honey exhibition business, and always puts up a splendid show.

Mr. Geo. H. Kirkpatrick, also of Michigan (formerly of Indiana), is another old Fair bee-man, tho not old in years. The comb honey he had on exhibition was not excelled by the best shown at the World's Fair.

Mr. Thos. S. Wallace's bees and queens were beauties.

Take it all in all, the Illinois State Fair this year was a wonderful success in all the departments. We believe there were 2,800 entries in the poultry department, which this year occupied a brand new brick building, specially erected for that department—the best in the country.

The last day we were on the grounds we understood there were 30,000 people in attendance, and the day following 65,000—the largest single-day attendance yet recorded at any State Fair.

In the name, and on behalf, of the bee-keepers of Illinois, we wish to tender thanks to the State Board of Agriculture for their liberal treatment of the bee-keeping industry, and especially to Hon. H. J. Cater, the Superintendent in charge of the Apiary Department, who is tireless in his efforts to see that bee-culture is treated generously and justly.

◆

Dr. Besse's Sweet Clover Lawsuit.—October 18 we received the following letter from Dr. Besse, of Delaware Co., Ohio, referring to his sweet clover case:

> My sweet clover lawsuit is again put off until the January term. My attorneys had it put off on account of the Judge ruling out the depositions that I had taken in Buffalo, for the reason (?) that the stenographers inserted the name of each one who gave testimony, as, for instance, "Deposition of Dr. Mason," or "Deposition of A. I. Root," etc.
>
> I see in the last Bee Journal that there is to be a convention of the Northwestern Bee-Keepers' Association at the New Briggs House, Nov. 10 and 11. Now, if my attorneys think it best, I will be there, and try to get a few depositions again.
>
> Please say in the next number of the Bee Journal that I expect now to be on hand, and should be glad to get all the assistance possible from fellow bee-keepers.
>
> Yours respectfully, Dr. Besse, M. D.

The bee-keepers of the Northwest will be glad to meet Dr. Besse. He is a live convention man. We are sure he will find plenty who will be pleased to help him out with their depositions regarding the value of sweet clover as a honey-plant. There are plenty in this region who know a good deal about it.

◆

The Trans-Mississippi Exposition next year will possess the greatest bee and honey exhibit ever known, if Hon. E. Whitcomb, the Commissioner for the Apiarian Department, is allowed to have his way about it. From two recent letters to us we quote these paragraphs:

> It is my desire that as many States as possible shall be represented in this department, and that they put up a honey show the like of which the world has never witnest. I cannot say at this time just what the building will be for this department, but we are given to understand that plans for the same

are being formulated as rapidly as possible, and that in this building the management will take no back seat, but that it will be the finest ever opened exclusively for the exhibition of honey in the world, and that it will be supplied with a convenient operating-room where exhibition jars can be filled and honey liquefied without the usual inconvenience.

We want you and all the bee-keepers of the United States with us next summer, and there will be nothing in Omaha that is too good for you, either. The Illinois appropriation has already been made, and I desire that the bee-keepers shall pitch in and claim their share before it has been absorbed by other societies. You will certainly recognize the importance of moving promptly in this matter. Somehow, I have always had a tender regard for Illinois and her people. There was where I spent my boyhood, and when the War broke out I shouldered the musket and served in one of her regiments four years; and there is in her State House to-day an old tattered flag which I have followed through the smoke of many battles, and on many a weary day's march.

No, Mr. York, I shall not rest quite contented until Illinois is well installed in the Trans-Mississippi honey-show, and you cannot blame me for it, either. Your very kind letter has carried me away back to the old homestead on the prairies, and to the scenes that toucht the hearts of men, and these reflections have toucht me, also, and I trust that you will forgive me for these expressions which might to some appear to be childish, but when these things come to me as fresh as 'twere only yesterday, I rather prefer to be a boy again.

Yours truly, E. Whitcomb,
Commissioner for the Apiarian Dept.

'Tis just as we said, Mr. Whitcomb is the right man for the place to which he has been appointed. If he can't get together the finest honey-show on earth, no one can.

At the convention to be held in Chicago, Nov. 10 and 11, perhaps some steps can be taken toward the exhibit which the bee-keepers of this State will furnish.

We hope that bee-keepers of other States will write to Mr. Whitcomb at once, and receive instructions as to how to proceed. Address him at Friend, Nebr.

◆

The Convention Picture on the first page of this number unfortunately shows only a very few of those who were at the Buffalo meeting. In addition to those named by Editor Root are these, that we happen to remember:

Immediately against the first post at the left is Henry W. Haag, of Stark Co., Ohio, one of the younger members of the convention.

With his left arm against the first post at the right, is E. H. Sturtevant, of Washington Co., N. Y. Mr. S. is a very quiet man in a convention, but out among the bees we imagine he "gets there, just the same."

Back of the sturdy Whitcomb is Mr. Gates, of Tennessee—the man standing furthest to the right in the picture. He was formerly from Michigan, was a soldier in the late Civil War, but has now gone back to the land of sunshine and flowers to keep bees instead of fighting.

Geo. Spitler, of Crawford Co., Pa., stands on the ground down in front of Dr. Miller.

Herbert Gibson, of Ontario, Canada, we believe, stands at Mr. Spitler's left.

There are others in the picture that we ought to know, but are ashamed to confess that we cannot recall by name. There are several standing near the door at the left that were not bee-keepers, but simply visitors or people who lived in the house shown.

◆

Brasilianische Bienenpflege.—The first number of a Brazilian bee-journal, with this title, has been received. Translated, the name means "Brazilian Bee-Keeping." And in what language do you suppose it is printed? German—beautifully printed in the German language, fine paper and presswork, and Emil Schenk its editor and publisher. The white population of Brazil is chiefly Portuguese, so its field is somewhat limited, notwithstanding the immense territory its name suggests. This is the second attempt to establish a bee-journal in Brazil, and it is to be hoped that it may be more successful than the first. The contents of this first number give promise that Herr Schenk knows what he's up to. The paper is publisht at Curitiba, the capital of the State of Parana.

The Weekly Budget.

Mr. J. D. Givens, of Dallas Co., Tex., when remitting for 1897 advertising, said: "My advertisement in the 'Old Reliable' has paid well this season."

Rev. H. Rohrs, of Rock Co., Wis., writing Oct. 20, said: "If nothing happens to prevent, I will be in Chicago Nov. 10 and 11, for the Northwestern convention." We hope Mr. Rohrs will bring along a number of other good Wisconsin bee-keepers.

Mr. Geo. W. Williams, of Polk Co., Mo., writing Oct. 14, said:

"It is still dry here. We had a very light shower Sunday—just enough to lay the dust for the time. I am doubling up my bees and feeding."

Dr. C. C. Miller visited us last week, when attending a banquet given by the Frank B. White Co., in this city. The Doctor was feeling well, and expects to be here to attend the Northwestern convention, Nov. 10 and 11. We will have more to say of the banquet given by the Frank B. White Co. next week.

Mrs. A. A. Simpson, of Greene Co., Pa., is not only a successful bee-keeper but a poultry fancier as well. She won first and second premiums on honey at their County Fair this year, also first on Barred P. Rocks, second on White P. Rocks, and first and second on S. L. Wyandottes. Her bees are in first-class condition for winter—she never saw them better.

Mr. T. Greiner, a noted agriculturist of Ontario Co., N. Y., writing in the Farm and Fireside for Oct. 1, said:

"I am not a bee-keeper, and yet I am greatly interested in bees, as all farmers, gardeners and fruit-growers ought to be. They fit well on the farm, and are almost necessary for the best success in fruit-growing. Besides, a little honey is a fine thing to have on one's table, and it is so wholesome, too."

Mr. George Lacey, of Livingston Co., N. Y., writing Oct. 8, said:

"I could not get along without the Bee Journal. I think it a very good paper. Altho I am quite young and not a very big bee-keeper, I took a great interest in the Buffalo convention. As soon as I saw those big bee-men I knew them because I have seen most of their pictures in the Bee Journal and bee-books."

Mr. John F. Logsdon, of Allegany Co., Md., made us a very pleasant call Tuesday, Oct. 19. He was in Chicago to attend the funeral services of an older brother. Mr. Logsdon has about 175 colonies of bees, but on account of foul brood in his apiary the past season, his crop was only 1,000 pounds of extracted, and an equal amount of comb honey, gathered principally from white clover and linden. Mr. L. has been a reader of the Bee Journal about 20 years. It seemed like a meeting of old friends.

Mr. P. R. Hobble and Wife, of Ford Co., Kans., made us a delightful call Monday, Oct. 18, with Mrs. Hobble's sister, living near Chicago, whom they were visiting. Mr. H. had 7 colonies last spring, increast to 20 by natural swarming, and took 500 pounds of extracted honey and 720 of comb honey. He lives in or near what is known as "The Great American Desert," but from his apiarian report it seems that that "Desert" is fast beginning "to blossom as the rose." Mr. Hobble finds a ready home market for all the honey he can produce.

☞ See "Bee-Keeper's Guide" offer on page 685.

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Bee-Pasturage a Necessity.—This book suggests what and how to plant It is a chapter from BEES AND HONEY. Price, 10 cents.

The Hive I Use, by G. M. Doolittle. It details his management of bees, and methods of producing comb honey. Price, 5 cents.

Dr. Howard's Book on Foul Brood.—Gives the McEvoy Treatment and reviews the experiments of others. Price, 25 cts.

Silo and Silage, by Prof. A. J. Cook.—It gives the method in operation at the Michigan Agricultural College. Price, 25 cts.

Winter Problem in Bee-Keeping, by G. R. Pierce. Result of 25 years' experience. 30 cts.

Handling Bees, by Chas. Dadant & Son.—A Chapter from Langstroth Revised. Price, 8 cts.

History of Bee-Associations, and Brief Report of the first 20 conventions. Price, 10 cts

Foul Brood Treatment, by Prof. F. R. Cheshire.—Its Cause and Prevention. Price, 10 cts.

Foul Brood, by A. R. Kohnke.—Origin. Development and Cure. Price 10 cts.

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Bee-Keepers' Directory, by H. Alley.—Latest methods in Queen-Rearing, etc. Price, 50c.

Book Clubbing Offers.

(Read Carefully.)

The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only ONE book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted, see postpaid prices given with the description of the books on this page. Following is the clubbing-list:

1.	Langstroth on the Honey-Bee	$2.00
2.	A B C of Bee-Culture	2.00
3.	Bee-Keeper's Guide	1.75
4.	Bees and Honey [Cloth bound]	1.65
5.	Doolittle's Scientific Queen-Rearing	1.75
6.	Dr. Howard's Foul Brood Book	1.10
7.	Advanced Bee-Culture	1.30
9.	Bienen-Kultur [German]	1.20
11.	Rational Bee-Keeping [Paper bound]	1.75
12.	Thirty Years Among the Bees	1.30
13.	Bee-Keeping for Profit	1.15
14.	Convention Hand-Book	1.15
15.	Poultry for Market and Profit	1.10
16.	Turkeys for Market and Profit	1.10
17.	Capons and Caponizing	1.10
18.	Our Poultry Doctor	1.10
19.	Green's Four Books	1.15
21.	Garden and Orchard	1.15
23.	Rural Life	1.10
25.	Commercial Calculator, No. 1	1.25
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27.	Kendall's Horse-Book	1.10
30.	Potato Culture	1.20
32.	Hand-Book of Health	1.10
34.	Maple Sugar and the Sugar Bush	1.20
35.	Silo and Silage	1.10
36.	Winter Problem in Bee-Keeping	1.30
37.	Apiary Register (for 50 colonies)	1.75
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Sq. with Corks.

BEESWAX WANTED.

We pay 26c cash, f. o. b. N. Y. City.
Catalog of Apiarian Supplies and Bees, Free.
I. J. STRINGHAM,
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APIARY—Glen Cove, L. I.
Please mention Bee Journal when writing.

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Offices: 1019, 100 State St.,
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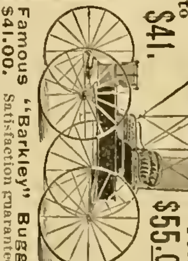

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Read our book of voluntary testimonials from our customers, and see what they think of Barkley goods and business methods. It will pay you to do so. We are selling direct to consumers, saving you the traveling man's expenses and dealer's profit. Send for cat. and prices

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FRANK B. BARKLEY MFG. CO. CHICAGO, ILL.

Please mention Bee Journal when writing.

General Items.

Thinks it a Good Place for Bees.

I think this is going to be a great place for bees. There are about 400 acres of alfalfa within five miles of me, and plenty of golden-rod scattered all over the country; also, there is some kind of a plant that looks very much like the Simpson honey-plant, but smells some like sage. I notice a great many bees working on it. C. H. PETTENGELL.
Phillips Co., Kans., Oct. 18.

Best Season for Years.

The past one was the best season here we have had for many years. Comb honey is selling for 10 and 11 cents per pound. CHESTER BELDING.
Orange Co., N. Y., Oct. 15.

Report for 1897.

I got about 200 pounds of honey from the white sweet clover I sowed a year ago, 100 pounds from Alsike, and a few sections of buckwheat. I had 384 pounds from 3 colonies. I have 5 altogether, and one swarmed and got away. I cut out all queen-cells, and they lost their queen afterward, and one lost her queen in the winter. I gave her foundation with young brood and queen, but they lost that; this fall I doubled them up. I will set out fifty locust trees in the spring. HENRY C. MOYLE.
Hunterdon Co., N. J.

A Cheap and Useful Tool.

A handy tool which is not expensive, for loosening honey-boards, supers, hive-bodies, and Hoffman frames, is an old ten-inch file with the small end, that the handle is used on, bent to a right angle, and the other end drawn down to a thin, sharp edge, and ground smooth an inch or two back. As it is not valuable, and exposure to the weather will not hurt it for use, it can be left in the apiary where it will be handy. This is better than a screw-driver for such work, as it is drawn down thin farther back, and wider, so it does not mark the hives so much. H. N. CHANDLER.
Langlade Co., Wis.

Peddling Honey—Good Advice.

The honey harvest is now over for this year, and I have got an average of 80 pounds per colony spring count, which I think is pretty good for an apiary of 25 colonies. I have increase to 35 good, strong colonies, and sold about 1200 pounds in the home market, at 10 and 12½ cents per section, and I know where I can sell the balance of my crop. If one is determined to sell, and will do a little canvassing, he can always find buyers. I sold about 600 pounds last week, and was out only one day. Give your customers a good nice section of honey, and they will be sure to want more next time, and tell their friends about your nice honey, and in this way your honey will do the advertising for you. When I first tried to sell honey, about five years ago, I could not sell 100 pounds in a week, and was nearly discouraged, but by selling only first-class honey, trade has increast wonderfully,

Finest Alfalfa Honey!

IT SELLS ON TASTING.

The Honey that Suits All Who Buy It.

Low Prices Now!

We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 7 cents per pound; 2 cans in one case, 6½ cents; 4 cans (2 cases) or more, 6¼ cents. The Cash MUST accompany each order.

☞ A sample of the honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

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Page & Lyon Mfg. Co. New London, Wisconsin,

Operates two sawmills that cut, annually, eight million feet of lumber, thus securing the best lumber at the lowest price for the manufacture of

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They have also one **One of the Largest Factories** and the latest and most-improved machinery for the manufacture of

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that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polisht on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equipt with best machinery, all combine to enable this firm to furnish the

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Send for Circular and see the Prices on a Full Line of Supplies.

Please mention the American Bee Journal. 7Atf

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Send for Free Illustrated Catalog and Price-List.

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Works Like a Charm.

The Monette Queen-Clipping Device WORKS LIKE A CHARM. With it I have clipped 30 queens, all in one day, when examining my bees. WM. STOLLEY, Grand Island, Nebr.

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I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now. DR. GEO. LACKE, Newburgh, Ind.

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FOR SALE.

Apiary and Small Farm in southwest Texas. Address,
Mrs. M. M. Dunnegan, Mathis, Tex.
40A4t Please mention the Bee Journal,

Glass Tumblers !

are the package to put honey up in, and work up a home trade. I can furnish you with ⅓ pint tin top, 24 doz. to the barrel, at $5.00 per barrel; ¼ pint size, 20 doz. to the barrel, $5 00 per barrel. Cash must accompany all orders.

Plain Labels for above Glasses — 2½x3, 250 for 40 cts.. or $1.25 per 1000.

H. G. QUIRIN, Bellevue, Ohio.
42Atf Please mention the Bee Journal.

Queens and Queen-Rearing.—If you want to know how to have queens fertilized in upper stories while the old queen is still laying below; how you may *safely introduce* any queen, at any time of the year when bees can fly; all about the different races of bees; all about shipping queens, queen-cages, candy for queen-cages, etc.; all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know—send for Doolittle's "Scientific Queen-Rearing" — a book of over 170 pages, which is as interesting as a story. Here are some good offers of this book:

Bound in cloth, postpaid, $1.00; or clubbed with the BEE JOURNAL for one year—both for only $1.75 ; or given free as a premium for sending us *two* new subscribers to the BEE JOURNAL for a year at $1.00 each.

and I think any one can increase his sales at home, if he will only try. It may seem a little embarassing to peddle honey from house to house, but you can stand this if you once get started and make a few sales—one will soon forget about being timid. So I would say to every one who has a honey crop to sell, muster up courage and try peddling it from house to house—it will pay you.

Dr. Miller, if I remember rightly, can not peddle. Take courage, Doctor, and you will find it much easier than having a red handkerchief on your head and wheeling dirt, as you once preferred to peddling. You can wear your Sunday clothes if you prefer, peddling, Doctor, and sing all the songs you like.

We are going out peddling again to-morrow. I find it much better to sell to consumers direct than to thestores. Some stores are all right, but eight out of ten do not take interest enough in honey to keep it in salable shape. They will put it in some corner out of the way, and a common customer would not know they keep honey for sale. When I come around and ask how they are getting along selling honey, they say there is no call for honey. I tell them to put it out where people can see it. Some will do as you ask them but most of them think, if they do not say so, "We know our business." But the facts are they don't know how to handle honey. The stores that sell the most for me, I always find keep their honey and cases dry and clean, and the cases can be used over half a dozen times, and be in first-class shape.

G. E. NELSON.

Henry Co., Ill., Oct. 9.

◆

Extraordinary Honey-Season.

The past season has been an extraordinary one in this section. The season started in about as usual. The first half of June was very rainy, which put swarming back till late, but the rain more than equalled, in the production of white clover, what it put the bees back in swarming. We have not had so large a crop of white clover for several years, and other honey-producing plants in the same ratio. I took 90 one-pound sections of nice white honey from one of my colonies, which is the largest yield I have known in this section. The fall flow of honey was the best for many years. Bees workt on golden-rod, which was very plentiful till frost came, and kept the bees storing in the supers all the time. I find there is a great difference in the honey-gathering qualities of the different strains of Italian bees. I have a queen whose workers are larger than any of my others, and I can find them from ½ to 1 mile farther away from home than any of the others ; and her hive is always heavy in stores. I united my bees in chaff hives on the summer stands.

W. E. VIRGIN.

Merrimack Co., N. H., Oct. 17.

◆

Laying Workers.—Winter Passages.

We have had a very dry season here in northwest Iowa. Bees have not much more than made a living the past summer. We started last spring with 50 colonies, and increast to 72. We bought a tested queen and reared a few nice, young queens from her.

The way I get rid of laying workers is to remove the hive containing the workers and put in its place one containing

BEES FOR SALE.

About 90 Colonies of Italians. Any one wanting to start an apiary cannot do better than to call on Dr. E. Gallup, Santa Ana, Calif., and examine the Bees before purchasing elsewhere. Double sets of Combs in Langstroth-Simplicity Hives, and warranted a superior lot of Bees for business. Correspodence solicited. **Dr. E. GALLUP.**
SANTA ANA, Orange Co., CAL.

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Bee - Supplies! ROOT'S GOODS at Root's Prices.

Pouder's Honey - Jars, and every thing used by bee-keepers. Prompt service, low freight rate. Cat free. Walter S. Pouder,
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INDIANAPOLIS, INDIANA

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That covers the whole Apicultural Field more completely than any other published, send $1.25 to Prof. A. J. Cook, Claremont, Calif., for his

Bee-Keeper's Guide.

Liberal Discounts to the Trade.

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Has No Sag in Brood-Frames

Thin Flat-Bottom Foundation

Has No Fishbone in the Surplus Honey.

Being the cleanest is usually worked the quickest of any Foundation made

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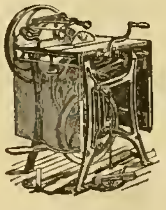

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46 Water St SENECA FALLS. N. Y.

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J. M. Jenkins, Wetumpka, Ala.

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Connecticut.—The fall meeting of the Connecticut Bee-Keepers' Association will be held at the Capitol, at Hartford, Nov. 3, beginning at 10:30 a.m.

MRS. W. E. RILEY, Sec.

Waterbury, Conn.

A HANDY TOOL-HOLDER!

Sent by Express, for $1.50; or with the Bee Journal one year—both for $2.00.

Every Manufacturer, Miller, Carpenter, Cabinet Maker, Machinist, Wheelwright and Quarryman, Farmer, or any one using a grindstone, should have one of these Tool-Holders. One boy can do the work of two persons, and grind much faster, easier and with perfect accuracy. Will hold any kind of tool, from the smallest chisel to a draw shave or ax. Extra attachment for sharpening scythe blades included in the above price. The work is done without wetting the hands or soiling the clothes, as the water flows from the operator. It can be attached to any size stone for hand or steam power, is always ready for use, nothing to get out of order, and is absolutely worth **100 times its cost.**

No farm is well-equipped unless it has a Tool-Holder. Pays for itself in a short time.

How to Use the Holder.

Directions.—The Tool is fastened securely in the Holder by a set-screw and can be ground to any desired bevel by inserting the arm of the Holder into a higher or lower notch of the standard. While turning the crank with the right hand, the left rests on an steadies the Holder; the Tool is moved to the right or left across the stone, or examined while grinding, as readily and in the same way as if held in the hands.

For grinding **Round - Edge Tools,** the holes in the standard are used instead of the notches.

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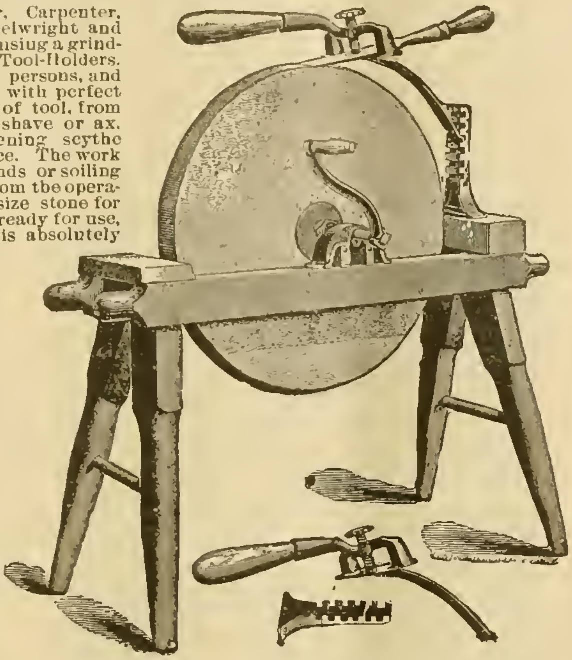

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This 15th and latest edition of Prof. Cook's magnificent book of 460 pages, in neat and substantial cloth binding, we propose to give away to our present subscribers, for the work of getting NEW subscribers for the American Bee Journal.

A description of the book here is quite unnecessary—it is simply the most complete scientific and practical bee-book published to-day. Fully illustrated, and all written in the most fascinating style. The author is also too well-known to the whole bee-world to require any introduction. No bee-keeper is fully equipped, or his library complete, without "THE BEE-KEEPER'S GUIDE."

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See the premium offers on page 650!

a frame taken from another hive on which is a queen and some bees to care for her. Then I carry the other hive some distance from the stand, and let the bees fly back, brushing all the bees off of the combs on the ground. There usually are very few young bees that do not know the way back to the old stand. The workers that have been acting the part of queen do not seem to be able to locate their "kingdom" and remain on the ground. The combs may be returned and all goes well.

Is it a good plan to cut holes through the combs to allow them to go from one to the other in winter, as advocated in the Canadian Bee Journal? Would not that be making more detestable bee-space?

J. W. SADLER.

Humboldt Co., Iowa, Sept. 30.

[See an item on your question in "Beedom Boiled Down," page 661.—ED.]

◆

Successful Year With Bees.

I enjoy reading the Bee Journal as much as ever. I find good instruction in every copy. I do not see many articles from bee-keepers in the East. It has been a very successful year here. July was very wet, nevertheless there has been a great honey flow. I wintered 6 colonies from the season of 1896, which came through in good condition, and received a little over 200 pounds of nice comb honey. I have increast to 10 colonies, which will go into winter quarters heavy laden.

I find a home market for all the honey I can get, at 20 cents per pound for the first quality, and 15 cents for second. I feel very well satisfied with this year's yield, but think I can do better another season, with the same number of colonies, as experience teaches.

FRANK D. KEYES.

Hampshire Co., Mass., Oct. 18.

◆

Report for the Season.

The bee-season is about over, and soon will be time to pack the bees for cold weather. I had 51 colonies of bees, but the moth got into them before I knew it, and killed three colonies, and the robber bees got away with a couple of colonies, so it will leave me with about 42. Mine did fairly well until the last two months, when it was so dry that they did not do much. I sold 1500 pounds of honey, around town. I did not try to sell a pound at the stores. I have built up a good trade, and could sell five or ten thousand pounds if I had it. I have only about 100 pounds on hand. It was so dry that the buckwheat did not amount to much. I love to get and read the Bee Journal.

WM. HOWELL.

Union Co., Iowa, Oct. 16.

[Why not get some of that fine alfalfa honey offered on another page, and "feed" that to your customers?—ED.]

◆

Best Season in Eight Years.

This has been the best honey-year we have had for eight years. I got an average of 100 pounds per colony, spring count, about half comb and the balance extracted, and my bees have plenty of stores (at least 27 pounds per colony) for winter, and are in fine condition. My nephew, O. L. Smith, in Vermont, a subscriber to the Bee Journal, who has over 100 colonies of bees, and is in a fine location for honey, writes me that the crop in that section is a failure this season, on account of the heavy rainfall; and that he has secured but little honey, and must feed quite a number of colonies or they will not winter. I have askt him for a full report, and if worth while I will send it for publication.

O. M. Smith.

Hampshire Co., Mass., Oct. 16.

Expert ♦ Testimony.

Chicago, Sept. 21, 1897.

To Whom it Concerns:

Y This certifies that we manufacture "**Yellowzones**" for Dr. W. B. House, Detour, Mich., from his own private formula; and we wish to state that only the purest ingredients that Science has produced, or that money can buy, are used in their preparation. Z

We are acting under instructions from Dr. House to spare no pains or expense in making them the very best preparation that the most modern skill can produce. And from our intimate knowledge of them we state unhesitatingly that "**Yellowzones**" are in every respect a most superior remedy.

We also manufacture "**Zonets**" for Dr. House from especially fine ingredients made by ourselves expressly for these wide-awake little laxatives.

Very truly yours,

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YELLOWZONES.

Y You have no doubt read Bro. York's testimony in previous numbers. Yellowzones are used extensively by bee-keepers. They are a general household remedy, indicated in the most severe Neuralgic and Rheumatic pains where other remedies have failed, and in all Fevers, Colds, Headaches, etc., and especially useful in diseases incident to cold weather, and **fully guaranteed** to please you, or **money refunded and no questions askt.** Z

A supply of **Zonets**, the wide-awake little laxatives, with each box.

We will appreciate your acquaintance and custom.

1 Box, 25c; 6 Boxes, $1.00.
Most orders are for dollar lots.

W. B. HOUSE, M. D.,
Drawer 1. DETOUR, MICH.

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My Foundation will SPEAK FOR ITSELF, and prices are O. K. So do not fail to write for a Catalog with prices and samples.

Beeswax taken in Exchange for Foundation or any other Supplies.

GUS DITTMER,
AUGUSTA, WIS.

Bee-Keeper's Guide—see page 685.

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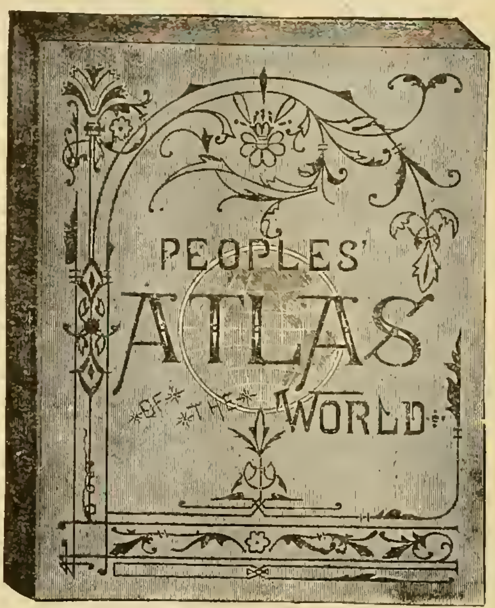

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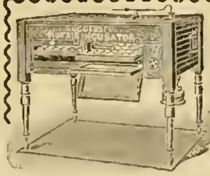

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Clover Seed Wanted.

Supplies to exchange for Alsike, Red, or White clover seed. Also make offers for cash
Address. **JOS. NYSEWANDER,**
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THROAT AND LUNG DISEASES,
DR. PEIRO, Specialist
Offices: 1019, 100 State St.,
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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Oct. 19.—Fancy white 11 to 12c. No. 1, 10c.; fancy amber, 8 to 9c.; No. 1, 7.; fancy dark, 8c.; No 1, 7c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 4c. Beeswax, 26 to 27c.

There is a fair trade in honey, despite the amount that is being peddled about the city by parties who are coming in with it, and who take lower figures than quoted, as a rule. This however is customary when local yield is large.

San Francisco, Calif., Oct. 13.—White comb, 1-lbs., 7 to 9c; amber comb, 4 to 6c. Extracted, white, 4 to 4⅜c.; light amber, 3½ to 3⅝c.; dark tule, 1¾ to 2¼c. Beeswax, fair to choice, 22 to 24c.

Shipments of over 400 cases extracted were made the past week by sailing vessel to England. More could be placed on foreign account, but at such low figures—3½ to 4c. for light amber to water white—that most holders refuse to accept. Slightly firmer prices rule on local account, but trade is of a light order.

Cincinnati, Ohio, Oct. 19.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.; No. 1 amber, 8 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½ to 4c. Beeswax, 20 to 25c.

Demand for honey is very slow, owing to warm weather and an abundance of fruit on our markets. Demand is good for beeswax.

Indianapolis, Ind., Oct. 19.—Fancy white, 11 to 13c.; No 1, 9 to 10c.; fancy amber, 9 to 10c. Extracted, white, 5 to 6c. Beeswax, 25c.

Demand for fancy white comb honey and fancy white extracted is exceptionally good, while there is almost no demand for dark or amber comb or extracted honey.

Detroit, Mich., Oct. 20.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c; fancy dark, 8 to 9c. Extracted, white, 5 to 5½c.; amber, 5c.; dark, 4c. Beeswax, 25 to 26c.

Honey is selling fairly well, with supply up to the demand.

Milwaukee, Wis., Oct. 19.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 8 to 10c. Extracted, white, 5½ to 6c.; amber, 4 to 5c.; dark, 4 to 4 1-2c. Beeswax, 26 to 27c.

This market for honey is in a very fair condition, and the consuming capacity is being enlarged. The supply is very fair, although we think there will be room enough for further shipments. The general quality of the comb honey so far is an improvement over last season, which fact we are pleased to note, and hope it will continue, more and more.

Cleveland, Ohio, Oct. 19.—Fancy white, 12½ to 13c.; No. 1, 11 to 12c.; fancy amber, 9 to 10c.; No. 1, 8c.; fancy dark, 7c.; No. 1, 6c. Extracted, white, 6 to 6½c.; amber, 5 to 5½c. Beeswax, 28 to 30c.

The demand for honey is increasing and we believe it will continue as the weather gets colder. We would advise shipping white honey, but dark is not moving sufficiently to encourage shipments.

Buffalo, N. Y., Oct. 19.—Fancy white, 11 to 12c.; No 1, 10 to 11c.; fancy amber, 8 to 9c.; No. 1, 7 to 8c; fancy dark, 6 to 7c.; No. 1, 6 to 7c. Extracted white, 5 to 6c.; amber, 4 to 4½c. Beeswax, 24 to 28c.

Receipts are light and demand is increasing. Trade is improving, with prospects of being sustained.

New York, N. Y., Oct. 20.—Fancy white, 12c.; No. 1, 10 to 11c; fancy amber, 9 to 10c.; No. 1, 9c.; fancy dark, 8½ to 9c.; No. 1, 8 to 8½c. Extracted, white, 5 to 5½c.; amber, 4½ to 5c.; dark, 4c. Beeswax, 26 to 27c.

During the past two weeks the market has not been so active, probably on account of the warm weather. When cooler weather sets in to stay, we expect a more active demand again. Southern in barrels is in good demand at 50c. per gallon. Beeswax in good demand.

Minneapolis, Minn., Oct. 19. — Fancy white, 10½ to 11½c.; fancy amber, 9¼ to 10c. Extracted, white, 5½ to 5¾c.

The market could stand more goods, if desirable quality. Fair demand for all grades, but fancy meets with ready sale. Would advise shipping now.

Kansas City, Mo., Oct. 20.—Fancy white, 12c.; No. 1, 10 to 11c.; No. 1 amber, 8 to 10c.; Extracted, white, 5½ to 6c.; amber, 5c.; dark, 4c. Beeswax, 22 to 24c.

Receipts of comb honey are large; extracted is light.

Philadelphia, Pa., Oct. 23.—Fancy white, 13 to 14c.; No 1, 12c.; fancy amber, 10c.; No. 1, 9c.; fancy dark, 8c.; No. 1, 7c. Extracted, white, 5 to 6c.; amber, 5c; dark, 4 to 4½c. Beeswax, 26 to 27c.

Honey is moving very lively; our market uses more now than any time during the year. Beeswax in good demand; very light supply.

Boston, Mass., Oct 22. — Fancy white, 13c.; No. 1, 11 to 12c.; fancy amber, 10c. Extracted, white, 6 to 7c.; amber, 5 to 5½c. Beeswax, 26c.

While the demand is fair, it is not as good as it should be at this season; but with cold weather we look to see a better demand.

Albany, N. Y., Sept. 25.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c; fancy dark, 8 to 9c.; No. 1, 7 to 8c.

Comb honey is arriving quite freely and moving off nicely at quotations.

St. Louis, Mo., Oct. 21.—Fancy white, 11 to 12c.; amber, 9 to 10c.; dark, 7 to 8c. Extracted, white, 5¼ to 6c.; light amber, 4½ to 5c.; amber, 4 to 4½c. Beeswax, choice yellow, 26c; prime, 25 to 25½c.; dark, half price.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & CO., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN.
120 & 122 W. Broadway.

Kansas City, Mo.
C. C. CLEMONS & CO., 423 Walnut St

Buffalo, N. Y.
BATTERSON & CO., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Cleveland, Ohio.
A. B. WILLIAMS & CO., 80 & 82 Broadway.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.
Mr. Selser handles no honey on commission.

St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.
S. H. HALL & CO.

Milwaukee, Wis.
A. V. BISHOP & CO.

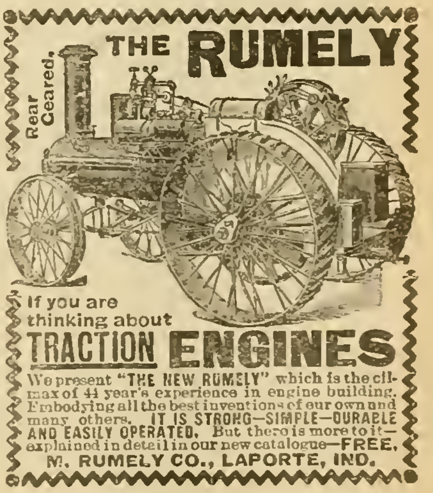
Boston, Mass.
BLAKE, SCOTT & LEE., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. MCCULLOCH & CO., 380 Broadway.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central Avs.



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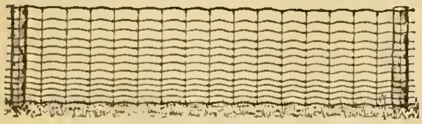

A FRENCH MOTHER'S ADVICE

to her son. when looking over one of Napoleon s old battle-fields. was: "No matter where, when you get to be a man, if you have any money, buy a few acres of land as a haven to which to retreat in case of storm: because, come war, flood, or cyclone,—if life is spared, you can commence again to raise your own potatoes:' to which we add, **"be sure to protect it with Page Fence."**

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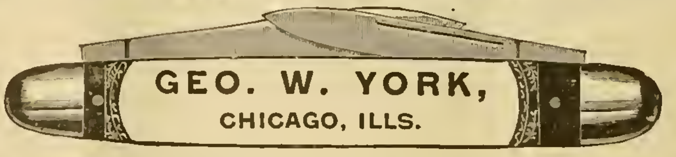

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The NOVELTY KNIFE is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed an AMERICAN BEE JOURNAL reminder, and on the other side, name and residence of the Subscriber.

The material entering into this celebrated knife is of the very best quality; the blades are handforged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring steel, and the finish of handle as described above. It will last a lifetime, with proper usage.

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How appropriate this knife is for a Christmas, New Year or birthday present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, a lady to a gentleman, or vice versa, a son to a mother, a husband to a wife, a brother to a sister or a gentleman to a lady—the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

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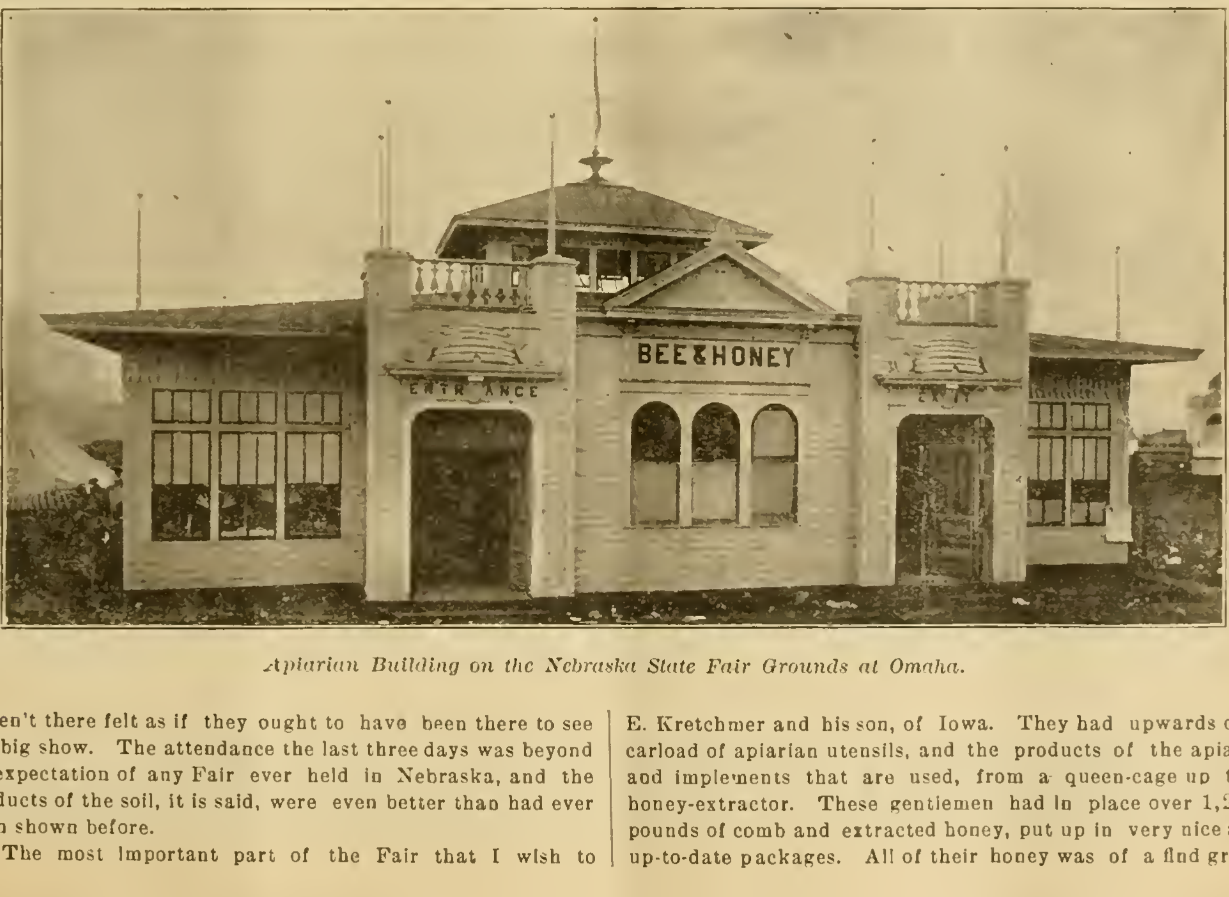
37th Year. CHICAGO, ILL., NOVEMBER 4, 1897. No. 44.

Contributed Articles

Nebraska State Fair Apiarian Exhibits.

BY J. M. YOUNG.

The Nebraska State Fair which was held at Omaha from Sept. 17 to 24, was an entire success in every particular. The weather was just as fine as could be, or as any one would want it, and tempered down to such a degree of comfort that it made everybody feel like going to the Fair, and those that weren't there felt as if they ought to have been there to see the big show. The attendance the last three days was beyond all expectation of any Fair ever held in Nebraska, and the products of the soil, it is said, were even better than had ever been shown before.



Apiarian Building on the Nebraska State Fair Grounds at Omaha.

The most important part of the Fair that I wish to speak of to-day, is the bee and honey exhibit in the apiarian building. This department drew many sightseers, and was one of the most attractive places to be found upon the grounds. Supt. Whitcomb, of the honey department, has been there so much and so often that he knows every kink in the business—just how to do this and that, and to make a success of it. He is certainly the right man in the right place, and I doubt if there is a man in all the State that would fill his place.

The bee and honey building is a magnificent structure, of which every bee-keeper in Nebraska ought to be proud. All the shelves and tables that have been previously used from year to year for exhibits, were occupied by apiarian implements, and the products of the busy little bee, to overflowing.

As one enters the building from the east, on the left could be seen one of the prettiest and most attractive displays of honey, bees, queens, and apiarian implements, made by Mr. E. Kretchmer and his son, of Iowa. They had upwards of a carload of apiarian utensils, and the products of the apiary, and implements that are used, from a queen-cage up to a honey-extractor. These gentlemen had in place over 1,200 pounds of comb and extracted honey, put up in very nice and up-to-date packages. All of their honey was of a find grade of white clover and alfalfa, and quite a sprinkle of basswood and sweet clover.

Leaving the Kretchmer exhibit, the next was that of Mr. G. M. Whitford, of Nebraska, who had on exhibition some very fine comb and extracted honey, put up in nice cases and glass packages of all sizes that would be hard to beat any where or place.

Next was the exhibit of Lovesy & Bouck, of Utah. They had some fine alfalfa comb and extracted honey that cannot be excelled in flavor and ripeness.

J. Prichard and C. M. Lewelling, both of Nebraska, had on exhibition some fine comb honey put up in the 24-pound cases, all alfalfa, that ought to bring a good, round price in the market, from its whiteness and fine flavor.

Mrs. R. M. Lewis had some very fine honey-vinegar, that could not be beaten by all the home-made vinegars.

The Minnesota Bee-Keepers' Supply Mfg. Co. exhibited a lot of hives, bees and queens, and implements used about the apiary. Mr. Westcott, of Nebraska, represented this company, and was making a success of talking it up and introducing the business.

L. D. Stilson, of York county, had some all-purpose chaff-hives that will winter bees every time, and without very much work to prepare them for winter.

August Davidson and wife has the second largest display of bees, queens, and comb and extracted honey that was on the grounds. Mr. Davidson deserves a vote of thanks by bee-keepers in the manner in which his display was gotten up and shown to the public. He also had some fine samples of beeswax, and a large number of honey-plants of Nebraska and other States.

Mrs. E. Whitcomb exhibited some fine samples of flowers made wholly from beeswax, just as it came from the extractor, that drew the first premium. She also had a fine sample of cake and honey-jumbles made from honey that the taste of honey could hardly be detected. Also, Mrs. E. Kretchmer had some fine cake made from honey that would equal those made from sugar or other sweet.

The Omaha Bee, of Sept. 23, gave the State Bee-Keepers' Convention a good send-off, and did not get bee-talk mixt up as newspaper reporters usually do.

Mr. Stilson, Secretary of the Nebraska Bee-Keepers' Association, talkt a little as if he would send a full report of the proceedings of the convention, held in the honey-building Sept. 21 and 22, to the American Bee Journal. Now we will see if he does it.

E. Kretchmer has some fine samples of beeswax from 12 different countries across the great water, also 14 samples from different States in the United States, showing the different colors of the wax.

August Davidson had a large horseshoe, about two feet wide, made from beeswax that weighs 50 pounds. It is quite handsome, and is well worth looking at.

The bee-keepers of Nebraska held an interesting convention in the honey hall Tuesday and Wednesday evenings, that was quite well attended, and many points of interest were discust.

C. M. Lewelling gave a written report of one colony that stored 184 pounds of honey during the season of 1897; 18 pounds of this was extracted honey, and 166 pounds of comb honey.

William Stolley also gave a written report of one colony that stored 148 pounds of extracted and 72 pounds of comb honey, and 12 pounds of uncapt. These two reports were sworn to, had seals, and are in possession of Supt. Whitcomb.

August Davidson had on exhibition a section of a bee-tree two feet long, cut off square at both ends, that contained the bees just as it came from the forest. Some bumble-bees were in this same section of bee-tree; whether or not they both inhabited the tree when in the forest I am unable to say.

L. D. Stilson had charge of the York county exhibit, in the agricultural building, and did not have much time to look after matters relating to the bees and honey. Mr. Stilson has been appointed State Superintendent of the Apiary Department of the Trans-Mississippi Exposition, to be held next year.

Three entries were made for the best exhibition of extracting to be done upon the grounds. Those competing were E. Kretchmer and his son, and R. M. Lewis. Mr. K. made the best time, and did the work much nicer. Two full combs of honey were uncapt and thrown out in five minutes, using the two-frame Cowan extractor.

Cass Co., Nebr.

Thin Honey in Combs—Dragging Out Larvae.

BY O. O. POPPLETON.

On the first page of the American Bee Journal for July 1, 1897, Mr. C. P. Dadant says:

> "During the first two or three days after it is harvested, clover or basswood honey is usually so thin as to shake out of the combs very readily, or even to drip out, if the comb is upturned."

This is not according to my experience. I have rarely or never known honey to readily shake out of the combs after the same day it was gathered; that is, not after it has been in the hives over night. During a heavy flow of honey little or none will shake out early in the day, but later it will commence to shake out slowly at first, increasing until night. I had noticed this point many years ago in Iowa, but the peculiar honey-flow in Cuba enabled me to observe it much more thoroughly than I have ever been able to in this country.

Of course, this thin honey must be handled right or it may make trouble. I know of only two ways to do it—one is, not to extract any until after the heavy flow is over; it is not practical to do this in all cases, and. I doubt whether it pays in any. The other way is to run the honey from the extractor into large, tall cans; let it stand until this thin honey has all risen to the top, then draw into barrels or other vessels from the bottom, leaving thin honey in the can.

CAUSE OF DRAGGING OUT LARVÆ.—On page 599, Dr. Miller, in answering a question as to why bees sometimes drag out their larvæ, fails to give one very important reason, in fact the one which, when it occurs, requires the promptest of attention from the bee-keeper. I refer to their dragging out worker-larvæ in the spring, or rather early summer, because of starvation. This is most liable to occur about the beginning of clover harvest. Bees at that season are rearing very large amounts of brood, and if a few days of bad weather, or any other cause, entirely stops the flow of honey for a few days, such colonies as have no reserve of honey in their hives are liable to starvation, and one of the signs of that condition is the carrying out of larvæ.

DESTROYING INFERIOR QUEEN-CELLS.—I would like to suggest to "Bee-Student" that his having a bad case of "California fever," or his living in Texas (*a la* Dr. Lay), are the only excuses I know of for any one to write what he does on page 594, that "It is but a minute's work to destroy all inferior cells" in a hive from which a swarm has just issued. Multiply the minute he allows for the work by 5 or 10, would be nearer fact.

Dade Co., Fla.

Comb Foundation—Is Its Use Profitable?

BY C. P. DADANT.

In beginning this article on a subject which interests me financially as well as theoretically, I wish to state to the readers that I write this reply to S. A. Deacon's article on page 579, at the special request of the editor of the American Bee Journal, otherwise it would not have been written, for I loathe to carry on what is popularly termed as "ax-grinding." With this explanation I will take up the subject.

As everybody knows, there are three main advantages claimed for the use of full sheets of foundation, viz: 1st, securing straight combs; 2nd, securing worker-combs; 3rd, saving the cost of the comb to the bees. Mr. Deacon makes light of the first of these advantages, holding that starters made by running molten wax along the upper bars of the frames will insure quite sufficiently straight combs. I will make bold to venture the assertion that Mr. D. has but little experience in the matter, or he would not make so sweeping an assertion. We introduced the practice of making a starter of molten wax on the frames in this country, and readers of the American Bee Journal, who have its volumes for 30 years past, can ascertain that we advertised and sold what we called the comb-guide press in 1870–74 to make these guides. The use of this press is certainly a help, but it is far from succeeding in every instance, and as it makes a very shallow guide it is not unusual for the bees to deviate from it after carrying the comb down a couple of inches and fastening the end of it to the edge of the next side bar, thus uniting two frames.

Even with the use of comb foundation in narrow strips—I will appeal to the memory of any reader who has had much experience—does it not often happen that the combs are thus warpt by the bees and so joined together that they have to be cut apart? Before we used sheets of foundation, we were accustomed to carry with us to the apiary a wash-pan and a towel, as in handling the combs we would often cause honey to run and get our fingers in it. We have no longer any such trouble, and when the foundation is put in correctly the combs are at all times as straight as a board. This is of more importance than a beginner would think, for the breaking of combs causes leakage, which in turn causes robbing among the colonies, and delays the apiarist, besides risking the safety of the colony.

Mr. Deacon further takes issue with the fact that the foundation saves a great deal of expense to the bees. He says that "careful experiments have conclusively demonstrated that it takes *less* than six pounds of honey to make one pound of comb." Pray, who made those *careful* experiments? Have we had more careful and more accurate experimenters than Dumas, Milne-Edwards, and Berlepsch? These men spent lives in making tests and experiments. Of late years, Viallon and others made experiments on combs built by swarms, but in every instance they failed to take into account the greater amount of honey consumed by a colony that could breed at once in built combs, as compared with the colony that had to build its combs, and this increase of population surely is of great value to the bee-keeper at the time when foundation is usually furnisht—at the opening of the honey crop.

All these experiments, when carefully examined, show that it takes from 7 to 15 pounds of honey to produce one pound of comb in the very best circumstances. Neither is this to be wondered at when we reflect that to produce wax the bees have to digest the honey, and it is quite probable that there is as much difference in the quantity of honey consumed under different circumstances to produce wax as there is in the quantity of grain consumed by stock, under different conditions, to produce fat. The majority of practical bee-keepers in this country are evidently of that opinion, and to see the persistency with which they continue to spend their money for this article (foundation) in large lots for large apiaries, one would come to the conclusion that the assertions in favor of it cannot be altogether what Mr. Deacon so elegantly calls "rot, ridiculous nonsense, rubbish, or ridiculously erroneous opinions."

I do not know what experience the bee-keepers of South Africa, like Mr. Deacon, have in the bee-line, but I do know that the American bee-keeper does not usually foolishly throw his money away. The average American is about as practical a man as can be found on the face of the earth.

Mr. Deacon makes too many assertions that have no foundation, for me to take the time to answer them all. There is too much guess in his article. He says the secretion of wax must go on in the hive, and the scales are wasted when foundation is used. This is not so, as there is always a necessity of wax for lengthening the comb and for sealing.

He says the use of foundation causes no saving in time, and he wants us to try two colonies side by side—one with starters, the other with full sheets. Why doesn't he make the test himself? This has been tried by thousands in this country, and they have come to the conclusion that they want the foundation. That is why so many hundreds of thousands of pounds are sold in America.

Mr. Deacon says bee-keepers "*foolishly* imagine" that the bees can draw out the foundation, and then goes on to explain that this "silly and most unreasonable belief" is all a mistake. Evidently, Mr. Deacon is speaking of that which he does not know. Any little boy who has seen foundation put into a hive, and taken out again after the bees have workt upon it, has seen that the looks of it are changed; that its base and sidewalls are thinner, *very perceptibly so*, and altho they do add some of their own wax, it is certain, and cannot be disproven, that they do make the greater part of the comb out of the wax that is thus furnisht them.

Now for the opinion of Mr. Simmins, for whom I have great regard, and whom the gentleman quotes. Mr. Simmins says there is no advantage in high sidewalls, and he finds them all scraped off. I beg pardon, but the foundation Mr. Simmins used was surely not of the proper kind, as we have never seen this, and I doubt whether a single man can be found in this country who will assert such a thing. The bees do not scrape off the sidewalls, if they can use the foundation at all, but, on the contrary, they remodel them and use the wax in them to deepen the cell, Mr. Deacon to the contrary notwithstanding. We have tried foundation without sidewalls at all, and it has not proven satisfactory.

Mr. Deacon admits that the use of foundation does away with the rearing of so many drones, but he makes light of it. And yet if foundation is properly hung in the hive so that it will not sag, the use of one sheet in place of a sheet of drone-comb will pay for that sheet, nay, for the entire supply of that hive in one season.

To conclude, I will advise Mr. Deacon, instead of "straining at gnats and swallowing whole caravans of camels," as he says, to make some thorough experiments, and stop writing till then, for it does not do him any good to try to contradict the experience of thousands of his brother bee-keepers.

Hancock Co., Ill.

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California Notes and Comments.

BY PROF. A. J. COOK.

THE SCENT OF INSECTS is astonishing. A female moth in a room has attracted scores of males through a slight space in the window, and even down a chimney and through a stove-pipe and stove. In one case a female in a room attracted a flock of males to the outside of the room, altho the windows were shut. Yet to us there is no perceptible scent at all.

DISCOURAGING PRICES.—The honey-production in California this season is very large, but the prices are discouraging. Think of 3½ cents for the finest extracted honey!

VALUE OF BEES TO FRUIT.—There are very few complaints now about the injury bees do to fruit in Southern

California. At the Farmers' Institutes praise is almost always given to the bees. This is a very wholesome change. The past summer I was where I had an admirable chance to observe bees on fruit, especially peaches. The wasps would wound the fruit, and then the bees would swarm on the sweet, juicy peach and save the juice. I lookt long, and never saw a bee alight on a whole fruit. They do not do things that way. At the dryers they were much around the soft fruit, but I did not see them on the fruit on the trays. I suppose that the sulphuring keeps them away, tho the sulphuring is done for another purpose. It is likely ever to come thus—any evil that is necessary will soon find a cure.

HELPS IN DRY YEARS.—There are two things that are going to help out California in her dry years—the bean crop, that may be made to yield abundant honey in such years; and the alfalfa crop, that will, under irrigation, yield honey liberally even in years of greatest drouth.

HOPEFUL PROSPECT FOR 1898.—Southern California has already had from two to three inches of rain, tho usually we look for little until December. This makes us hopeful of another wet season. Last year this place (Los Angeles county) had 21 inches of rainfall; and Southern California harvested a splendid crop of honey the past season. We may well be hopeful that 1898 will be equal to 1897 in its honey product.

ORGANIZATION AND CO-OPERATION MUST COME.—Raisin-growers of the San Joaquin Valley have acted together and refuse to sell their crop for less than 3½ cents per pound. The walnut-growers have acted similarly regarding their product. The orange-growers are taking similar steps. Why not? The lawyers act together to fix their fees; the doctors consult and fix their charges—why should not "producers of our own food products, which, unlike the wares of lawyers and doctors, are of certain value, fix prices on theirs? The laws when dealing with railroads and corporations always grant them a 'reasonable' per cent. on capital, etc." Why not producers calculate the cost of their products, add a reasonable percentage for investment, and then fix charges? This would be right and just, and must come some day. It will not come until producers can act together and demand the same favors that are granted corporations. It is their right, and they, as the great majority, have the power to secure their rights. They must co-operate fully, and then they can get their rights. The way to secure this complete co-operation is to educate the producing classes that they may know their rights, and their ability to secure them. When this is done, bee-keepers will not be forced, or even askt, as they are now, to take 3½ cents per pound for the best honey!

TREES AND PLANTS FOR HONEY.—There is no little interest manifested in tree-planting, and many are asking regarding honey-plants. This is surely wise. Tulips, maples, and basswoods East, and the most valuable eucalypti West, together with the beautiful buckthorns, should receive attention. Close observation at such places as the Santa Monica station, and Smiley Heights, at Redlands, with their scores of varieties of eucalypti, should be given, that we may know the most valuable species for bee-pasturage.

Los Angeles Co., Calif.

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Langstroth on the Honey-Bee, revised by The Dadants, is a standard, reliable and thoroughly complete work on bee-culture. It contains 520 pages, and is bound elegantly. Every reader of the American Bee Journal should have a copy of this book, as it answers hundreds of questions that arise about bees. We mail it for $1.25, or club it with the Bee Journal for a year—both together for only $2.00.

"Self-Hiving and Non-Swarming Hives."

BY F. A. GEMMILL.

On page 626 appears an article on the above subject by A. Duncan, of Georgia. I presume Mr. D. is a naturalized citizen of the United States, altho his name might lead one to believe that either he or his ancestors were of Scotch extraction. Be that as it may, it cannot, or at least ought not, make him any the worse for having, like myself, some Scotch blood in his veins.

Presuming, therefore, that Mr. D. possesses both the natural shrewdness of a Scotchman, and the inventive genius of a Yankee, it is not unreasonable to suppose, and I sincerely trust he has combined these qualities, and really invented something of practical value to apiarists.

I may state that I am in the bee-business to stay, even if I do not make such a fortune as is sometimes made in California, or even more than a partial living at following such a pursuit, but whether to a much greater extent than heretofore, depends entirely upon my ability to control and successfully manage a larger number of colonies with my limited time, at a reasonable and profitable amount of expense and labor.

That I have for "long and weary" puzzled the small amount of brains located in my cranium day-times, and lay awake for hours night-times, "a thinkin' and a thinkin," of how best to solve the question at issue, has been no secret to the person I have for nearly a quarter of a century supt porridge with, and sometimes eaten oatmeal cakes by way of luxury. Indeed, I have often been told that I am no exception to the general rule, "that every man is daft on some particular point," and myself particularly so on the hobby of trying to get "something for nothing." Besides, having failed myself to accomplish much, I have also tried in vain, to a greater or less extent, every method having any appearance of success, which has been presented through the columns of the various bee-publications.

Now, I hope Mr. Duncan is going to, if he has not already, capt the climax, by becoming a second veritable Langstroth, in conferring a lasting benefit on apiarists, second only to the advent of movable combs.

I do not know whether Mr. D.'s patent includes the biggest portion of North America (Kanada and the Klondike) or not, but I will assure him that so far as I am concerned it will make no difference, as I will in any case pay the royalty he may claim for the use of such a contrivance, and once more give a trial to another device, in the hope that I will not again meet with disappointment.

In the meantime, I'll just wait with patience the appearance of his advertisement in the American Bee Journal, giving an engraving and further particulars regarding his non-swarming or self-hiving apparatus.

Ontario, Canada.

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Dampening Sections—Moving Bees, Etc.

BY CYRUS C. ALDRICH.

Allow me to give my method of dampening sections:

With a sponge I slightly dampen the outside of the section opposite the grooves, and then place another section outside down on the dampened. In this way every other section is wet at the proper place, and when the section becomes dry it will not be loose in the joints, as it would be if wet in the groove.

To those who wish to make tight-top section-cases, with two-open-sided sections, I would say turn the section one-fourth over, and cut an entrance at the bottom, and you have it.

In answer to Geo. H. Stipp, as to moving bees, I would say that bees can be moved at any season in this part of the country. My way of moving is as follows:

Use screens at the entrance and on the top of the hive. Shut the bees up in the evening, when all are in, then move to the desired location, and keep the bees closed in the hive until the next evening; just before sundown give them their liberty by removing all of the screens. But few bees will return to the old location. Be sure to give plenty of ventilation.

Riverside Co., Calif.

Questions AND Answers

CONDUCTED BY
DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Test for Adulterated Honey.

What is an infallible test for detecting cane-sugar or other adulterant in both comb and extracted honey, whether added direct or by feeding to the bees? HONEY-EATER.

ANSWER.—That's a thing more easily askt than answered. To detect adulteration in honey is not even an easy thing for experts or chemists, and as yet there is probably no way by which, with ordinary appliances, you can make an infallible test. Until lately our government chemists had no infallible test, but as progress is constantly being made, it is not impossible that some easy test may be found for the laity.

Not a Good Plan of Transferring.

Is this the new or the old way of transferring bees? A neighbor of mine was telling me about the moth being in his hive, and he tried transferring the bees to a new hive. This is the way he did it: He took the new hive and set it by the side of the old one, and poured molasses on the alighting-board of the new hive to coax the bees in. They did not seem to be the coaxing kind, as he has no bees now. SUBSCRIBER.

ANSWER.—If there was any patent on this method of transferring bees, the patent expired long ago, but it is a very successful way of transferring bees. The only trouble is that the combs are not transferred at the same time as the bees, so the bees never stay transferred, but basely desert the new hive just as soon as the supply of honey is exhausted.

Bad Effects of Sorghum and Cider Mills—Uniting and Moving Bees.

What should I do with my bees? I have lost about half the bees in every colony, the result of visiting sorghum and cider mills, which are in operation here. I have 85 colonies, 75 of them half a mile from town, and 10 at home, in town. I expect to move the 75 colonies to my home in town next winter. All the colonies have plenty of stores. Would it be a good thing to double them up *now*, before I remove them, and afterward extract the honey from the other hives not in use? ILLINOIS.

ANSWER.—Altho I have a very keen sense of the unjust injury you have suffered, having in former years had some personal experience in the matter, I'm not certain I can be of use to you. It ought not to be possible that a man's bees can be ruined or even decimated by a cider-mill or something of the kind, leaving the bee-keeper utterly helpless to protect himself. But such is the apathy among bee-keepers as to proper legal protection, but very likely what has been will continue to be, and the question at present is merely what shall you do with your colonies that have suffered.

From my own experience in the matter, I should say that it is quite possible that a careful inspection will show that the loss of bees is much less than supposed. Very likely most of the colonies have enough bees remaining to winter through all right. If they have not, they should be united. If some are strong enough, they should be left, uniting only so far as necessary. Neither is it necessary that in every case two colonies should be made into one. Suppose you find three colonies, each having about two-thirds as many bees as you think necessary. Instead of uniting two of the colonies into one, divide one of the colonies between the other two, thus making two colonies out of the three. Whether the uniting should be done before moving, or after, depends upon the time of the moving. If convenient, better move them at once, then unite. For if they are united in a strange place before they have had time to mark locations, there will be no trouble about their going back to the wrong hive.

Probably you will do well to save at least a part of the combs from the extractor, to be given to the bees next spring. For usually you will find empty combs in the hive in the spring, and it's good economy to put sealed comb in their places.

Location for Bees—Moving Them.

1. Is a location with an abundance of basswood and but few other honey-plants, a safe place to establish an apiary with reasonable assurance of a crop every year?

2. I have 25 colonies of bees which I wish to move about 100 rods. What time in the year, and what time in the day, is the safest?

3. Is there any plan I can adopt to prevent them from returning to their old home? The bees are to be moved from the sun into the shade. UTAH.

ANSWERS.—1. Such a place might be considered pretty safe for an apiary. Basswood does not always yield, it is true, but the same thing is true of white clover and other leading honey-plants. So far as yet learned, sweet clover seems to be an exception to the general rule, yielding honey almost every year.

2. Better move them as soon as they have stopt flying entirely for the season, as nearly as you can guess at it; for you can never be entirely sure that a warm spell may not come next day, but you can make a pretty good guess at it. The idea is to have the bees moved at a time when they will not fly again for a long time, for after long confinement they mark afresh their location, no matter what time of day they are moved if it is cool enough so they will not fly. If the temperature is such that bees undisturbed would remain quietly in their hives in the middle of the day, but would fly out upon the hives being disturbed, then take them in the evening.

3. Remove all stands from the old location, and make it look as unlike home as possible. Even this may not be necessary at this time of year.

No Robbing—Differing Tempers.

1. I bought a colony of bees last spring, and divided them, making two. They have not stored enough honey to winter them, and while I was away one colony just up and skipt. What caused that?

The yellow jackets have been quite bad this summer. Early in the summer the bees got to robbing, and the colony that left kept it up all summer. While I was gone the hive-entrance was contracted to keep the yellow jackets out, and the next day the bees left. Was it because they couldn't get into the other hives?

2. It was the colony with the old queen that left, and they were as gentle as could be desired, while the other is so cross I can hardly go near them. What causes the difference? OREGON.

ANSWERS.—1. It is just possible that you were mistaken as to where the robbing was, and it is possible that the colony with the old queen was the one that was being robbed. If so, and it was weak or queenless, then it may have deserted the hive and gone with the robbers. Such a thing sometimes happens. If the above supposition is correct, then lessening the entrance may have had nothing to do with the desertion. It is possible, on the other hand, that closing the entrance had something to do with the bees leaving, not because they were hindered from robbing other hives, but because closing the entrance made the hive too hot. For if I understand you correctly, the entrances were contracted, but not entirely closed, and in that case they could still get at the other hives.

2. If the colony with the old queen was weak and discouraged, that would account for their not being so cross as the other colony. Even supposing the colonies were of the same strength, it might be that the progeny of the mother might be quite different in character from the progeny of the daughter; for the worker progeny of the daughter would only get half their characteristics from the queen, the other half being from the drone that was their father.

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Growing Sweet Clover in Georgia.

I am going to plant some sweet clover (*Melilotus alba*) for bee-pasturage as an experiment. The land I am going to use is rich bottomland, which is in fine state of cultivation, and has been a portion of a hay farm, and produces very heavy crops of grass and peas. As this plant does not grow in this climate at all, I would like some advice as to the proper way of planting the same. I am going to plow the land well, harrow it, and sow the seed on top, and roll the surface level. What do you think of this method?

Bees are pouring in honey now (Oct. 9) from aster, chiefly. I will take a super from each of my 30 colonies this fall, which is doing better than for several years, as we don't get much fall surplus here. It has been a fine honey-year.

GEORGIA.

ANSWER.—Your plan of preparation is all right, unless it be that the surface should be packt more solid than you are likely to have it. I have seen ground prepared beautifully, the seed come up well, but the following winter killed every plant, the plants being heaved out of the ground by the freezing. Such a thing might not happen so far south as Georgia. The editor of Gleanings says he has never known sweet clover to succeed on rich soil, but I think the reason is that the surface has been too soft, and the seed not being deep the plants heaved in winter. I have seen a rank growth on rich soil, but the seed was either planted deep or the surface trodden hard. I think Mrs. Harrison says she could never succeed in getting sweet clover to grow in Florida, but good success is reported in Mississippi. On the whole, perhaps you will do well not to risk too much till after trial.

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Getting Bees Ready for Winter.

1. I am getting my bees ready for winter. Outside of the regular dovetailed hive I have winter-cases which go over all and have a separate cover. This leaves space between the hive-body and side-walls of the winter-case of about two inches; on top there is room enough for a super. Last winter I packt with leaves, and bees wintered well. Do you consider straw just as good? If yes, need it be cut straw, or will the long straw usually bought in bales do?

2. I am using 10-frame hives mostly, and have taken out one frame in each, reducing to nine. Bees cover those well. Would you take out more? When I take out one frame I move the division-board up close; this leaves a small space. As I have packt outside cases is there any need of putting packing in the place where I took the frame out, or just let it go?

NEBRASKA.

ANSWERS.—1. I doubt if the straw is as good as the leaves. If straw is used at all, it would be difficult to pack the long straw closely. It would be better cut. If you can't get leaves, can't you get planer shavings? Some esteem these very highly, and they are easily obtained in most places.

2. Prof. Gaston Bonnier, of Paris, France, if I remember correctly, made a series of experiments with lamps and thermometers that seemed to show quite conclusively that an empty brood-comb was just as good as a division-board. It hardly seems as if it could be, the division-board being close and the brood-comb open all around, but there seemed very clear proof, the details of the experiments being very fully given. As a matter of actual practice nowadays, it is probable that most bee-keepers do not take out frames for wintering, but leave the same number in winter as in summer. If the combs are filled or partly filled with honey, that is still better than to have empty combs. It is hardly necessary to put in any packing. If you can have it (and if you can't have it now, you can next year), the very best sort of packing is a comb filled solid with sealed honey.

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Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offers on page 701.

BEEDOM BOILED DOWN.

Bees and Fruits.—Prof. Cook says in Gleanings: "The fruit-men of California have ceast to denounce the bees. We rarely hear other than praise of the little honey-gatherers."

Brimstoning Colonies for the sake of the honey, altho almost unknown at present in this country, continues to be practiced quite extensively in Europe. One firm advertises in the French bee-journal, L'Apiculteur, that wishing to save the bees from suffocation, they will buy heavy colonies at 4½ cents a pound.

To Drive Robber Bees from the cracks of hives, John Craycraft says in Gleanings to squirt a few drops of coal-oil into the cracks. He says: "I have usually used a bunch of wet grass at the entrance of a hive robbers were trying to clean out, but not always with success. Just sprinkle a little coal-oil on the grass and watch the results."

A Bee-Killer.—T. S. Ford, of Mississippi, reports in Gleanings that the whippoorwill or night-hawk eats his bees. He says it is quite different from the Northern bird of the same name, a specimen that he shot having a mouth 1¾ inches in width, the distance from the tip of one mandible to the tip of the other, when widely extended, being 2¾ inches.

Drawn Foundation.—In view of the fact that the bees when they have plenty of time for it try to fill up the sharp angles at the bottom of the cells when flat bottoms are used, Gleanings announces that hereafter drawn foundation will be made with natural base, and that it is now found that the natural base is made more easily and cheaply than the flat.

Honey Versus Sugar.—In L'Apiculteur the question is raised why it is that on sugar which costs about 8½ cents a pound grocers are satisfied with a profit of 10 to 15 per cent., while on honey which costs less than 11 cents they must have a profit of 170 to 190 per cent. The opinion is given that organization and united action might bring about a better state of things.

Potassium Permanganate is a remedy the most efficacious and the least dangerous of any used in surgery, says Dr. Verbrugghen, and in view of the fact that sometimes serious results come from bee-stings, it is well to have this remedy constantly on hand. Promptly remove the sting, moisten the wound, and lightly rub over it a crystal of the salt. If convenient, apply for some hours a compress moistened with one or two per cent. solution.—Revue Internationale.

Raising Hives.—A "stray straw" in Gleanings notes that the old-fashioned plan of raising a hive half an inch or an inch on four blocks during hot weather seems coming again into favor, whereupon the editor remarks: "I do not believe that bee-keepers realize the advantage there is in having plenty of space under the brood-frames, with a deep entrance, during the honey-flow, when the weather is hot." He thinks the time is coming when deep and wide entrances will be used exclusively, and that swarming will be materially reduced thereby.

Sugar for Bees.—Advertisements may be found from time to time in the foreign bee-journals of proper sugar for bee-food, pure cane-sugar, sugar without bluing, etc., and the British Bee Journal lays stress editorially on the fact that beet-sugars are not suitable for bee-food. In this country there seems to be no distinction between beet and cane sugars, and it is doubtful if there is any way by which a bee-keeper can tell whether a sample of granulated sugar is from cane or beets. Possibly we are making a mistake in not trying to get what our neighbors across the water consider the best.

Age of Combs.—Is it not true that fashion has a good bit to do with bee-keeping matters? There are our British cousins who have for years followed up the practice of using a carbolized cloth instead of a smoker, while in this country the carbolized cloth was tried to some extent, but its use is now largely if not entirely abandoned. Another thing which hardly seems to have any explanation except fashion is the difference of opinion on the two sides of the water as to the use of old combs. In this country there seems to be no brood-combs so old as to be objectionable, while in England demand is made for the renewal of comb perhaps at the age of four or five years, one writer going so far as to say (British Bee Journal, page 234): "I have now resolved never to use a comb a second time under any pretense whatever; that is to say, when combs are once removed from a hive they will be melted down, and not saved for future use." That's radical enough, isn't it?

Foul Brood in the Fall.—Here is the advice given by the editor of Gleanings, a man who has had much personal experience with foul brood: Extract and boil the honey, burn the combs and frames. Immerse the hive in a vat of boiling water—perhaps at a cheese factory—keep it under at least 40 seconds—60 would be better. The plan to disinfect the hive is less trouble and perhaps just as good. Paint the inside of the hive with kerosene, set fire to it with the cover off, and let it blaze until it is charred just enough to show that fire has been inside the hive. Then put in two or three tablespoons of water and put on the cover. As late as first of October it may be worth while to save the bees. Shake them on frames of foundation, and after they have starved long enough to be weak, dump about three lots into one hive, thus making one colony out of three, and commence feeding.

Swarming Bees.—That's what Geo. L. Vinal, in Gleanings, page 740, calls the treatment he gave two colonies of bees that persisted in hanging out and building queen-cells in spite of his repeatedly cutting out the cells. He caged the queen with a few attendants, fastened a branch of a tree in the ground, tied the cage on the branch, placing a piece of canvas near the branch. He brusht the bees all off the frames and out of the hive, and they clustered on the branch just like a natural swarm. He put the frames back into the hive, set the hive in a new place, and hived the swarm in it after he had let it hang an hour. The bees went right to work and never hung out again. Now he wants to know whether it was changing the location of the hive, or letting the bees hang in a cluster for an hour that made the bees give up swarming.

The thought with some will be that this plan is as much trouble as natural swarming, perhaps more. But a good many would be willing to take extra trouble if only it could be at a time to suit the bee-keeper instead of the bees. A radical difference, however, is that natural swarming divides the force and breaks in badly on surplus work; whereas with Mr. Vinal's plan the whole force is left to go right on in the supers, just as if they had never thought of swarming. The important question is, will it work in all cases, or did it just happen to work right in these two cases? It's a big thing if it will always work.

How Much Honey Does a Worker Store?—W. C. Macy, as reported in Pacific Bee Journal, failing to find in the books how much honey a bee produced in a year, determined to settle the matter for himself. He says:

"I selected one of my colonies of average size and killed the bees by smoking them with sulphur. By means of a toothpick and a goodly stock of patience I had the swarm scattered over the kitchen floor and counted inside of three hours. I found the number and kind to be a queen, 270 drones, and 16,480 workers. From a colony of this size the yearly output is 50 pounds of honey, or 1/21 of an ounce. This, of course, does not include the amount consumed by the inhabitants of a hive."

Of course, it will be remembered that during the working season the life of a worker spans only about six weeks, and as it does not begin field-work till 16 days old, there are only 26 days spent in field labor. If the honey harvest should last just 26 days, and if the honey stored during that time together with the honey consumed should amount to 50 pounds, then 1/21 of an ounce would fairly stand to the credit of one worker. But if the harvest extends over six, eight, ten or more weeks, the case is quite different. On the other hand it must be remembered that the 50 pounds of surplus is the smaller part of what the bees gather, their own needs requiring at least more than 50 pounds, so it is quite possible that 1/21 of an ounce may not be so very far out of the way as representing the amount of honey gathered by a single worker.

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

The American Bee Journal
OLDEST BEE-PAPER IN AMERICA

GEORGE W. YORK, - Editor.

PUBLISHT WEEKLY BY
GEORGE W. YORK & COMPANY,
118 Michigan St., - CHICAGO, ILL.

$1.00 a Year—Sample Copy Sent Free.

[Entered at the Post-Office at Chicago as Second-Class Mail-Matter.

United States Bee-Keepers' Union.

Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

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EUGENE SECOR, Forest City, Iowa.

VOL. XXXVII. CHICAGO, ILL., NOV. 4, 1897. NO. 44.

Editorial Comments.

Our Dear Baby Girl, whose gladdening arrival on Sunday, Oct. 24, we announced last week, was permitted to stay with us only three short days, passing away Wednesday evening, Oct 27, after about 30 hours of suffering from hemorrhage of the bowels. It was so hard to give up the dear baby, for altho it remained less than half a week it had already deeply placed its little self in the affections of its mamma and papa. We had only a few hours before its death finisht mailing the Bee Journal, telling of its happy coming, and now so soon to record its going away is a sad thing to do. But wherein we cannot understand we can only trust that some day all will be made plain. Until then sorrowing hearts will strive to bear up bravely under their heavy burdens.

Mrs. York continues to recover nicely, and hopes soon to be up again. But the time will hang heavy upon her unexpectedly empty hands and arms.

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Illinois State Convention.—Secretary Jas. A. Stone, of the Illinois State Bee-Keepers' Association, requests us to announce that the Springfield meeting of that association will be held at the State House, Thursday and Friday, Nov. 18 and 19. The Grand Lodge I. O. O. F. of Illinois will meet in annual session in Springfield that week, and they have secured a rate of one and one-third fare for the round trip, without the use of railroad certificates. Should you be unable for any cause to get this rate from your agent, take a a receipt from your agent showing that you paid full fare, and present this receipt to the Railroad Committee at Springfield.

We trust there may be a large gathering of bee-keepers at the Springfield meeting, Nov. 18 and 19.

A Special Sweet Clover Number is what the Busy Bee for October is, bringing forth things old and new in reference to that plant. Editor Abbott thinks the value of sweet clover is only beginning to be appreciated. Ohio and Wisconsin have repealed their laws which class sweet clover among "noxious weeds." As showing the advance of sentiment, the position of Gleanings at the present time is contrasted with that of five years ago. In 1892 an editorial of Gleanings said: "Sweet clover is not a success with us for fodder or feed at all, altho stock will eat it to some extent if cut at just the right time." A late editorial in the same paper says: "Its value for cattle, horses and other stock has now been fully settled; but it must be cut or pastured when the plants are small, say a foot or two high. Of course, stock will eat it after they have become accustomed to it when it is several feet high and in bloom......Its value for stock is easily shown by the fact that it is never found where horses or cattle are pastured."

◆ ◆ ◆

The Rietsche Foundation Press, of which there are now in use across the sea more than ten thousand, owes much of its popularity to the fact that, unlike in this country, it is difficult to buy foundation and feel always sure that it is made of pure wax. Revue Internationale says excellent manufacturers of foundation are not lacking, but unfortunately others have given place for complaints that are justified, and the competition of the Rietsche press has had the happy result of putting on their guard manufacturers who use foundation-mills, obliging them to use only pure wax.

◆ ◆ ◆

The Northwestern Convention next Wednesday and Thursday, Nov. 10 and 11, at the New Briggs House, northeast corner of Randolph Street and Fifth Avenue. Everybody is invited to be present and help make it profitable and pleasant meeting. Dr. Miller expects to be here, and many other prominent bee-keepers of the Northwest. Convention will begin at 10 a.m., Nov. 10.

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Against Food and Drug Adulteration.—Hon. Eugene Secor, General Manager of the United States Bee-Keepers' Union, has written us as follows concerning an effort being made by the Government to investigate the adulteration business:

FOREST CITY, Iowa, Oct. 23, 1897.

GEORGE W. YORK, Chicago, Ill.—

Dear Sir:—I enclose a circular received from the special agent of the Agricultural Department, Division of Chemistry, in regard to food and drug adulterations. Would it not be a good idea to publish the circular in the Bee Journal, and ask your readers to write the Department if they know of any adulteration of honey, and to make such other suggestions as are askt for in the circular?

I have opened correspondence with Mr. Wedderburn, in the hope that we may get some aid from the Department in determining adulterations in extracted honey. I believe it will be to our interests to favor a national pure-food law, for the reason that the laws of the United States are more feared because of better enforcement than the State laws.

Yours truly, EUGENE SECOR.

Certainly. We are glad to give in full the circular referred to by Mr. Secor, and we trust that our readers will comply with his excellent suggestion. Here it is:

UNITED STATES DEPARTMENT OF AGRICULTURE,
DIVISION OF CHEMISTRY.

WASHINGTON, D. C., Sept. 17, 1897.

Dear Sir:—Under authority of Congress, the Department of Agriculture is investigating the extent and character of food and drug adulterations, and is desirous of securing all the information possible on the subject. Having been appointed special agent to inquire into and report upon this matter, the undersigned writes to request that you kindly furnish the Department all the information you have in regard to adulterations, together with any suggestions as to the best remedy for the evil.

1. Do you know of any new adulterant? If yes, state what, and how used.

2. Would a national food and drug law assist in preventing adulteration?

3. Would uniform food, drug, and pharmaceutical laws tend to promote efficiency and purity?

4. Please suggest what would best promote the interests of consumers and legitimate manufacturers and dealers.

5. What is your opinion as to the extent of damage done legitimate business by imitation of brands, packages, etc.?

6. To what extent do sophistication, misbranding, and injurious adulteration exist?

7. Have State laws aided in preventing adulteration? To what extent?

8. Would a national law assist State officials in properly executing the local laws?

9. Have adulteration, sophistication, and misbranding increase or decrease?

Prompt replies to the above, together with any other information or suggestions, will be highly appreciated.

Yours respectfully,
A. J. WEDDERBURN, *Special Agent.*

Approved:—JAMES WILSON, *Secretary.*

We are rejoiced to know that the Government is to take up the subject of adulteration, and we trust it will make the investigation very thorough. We believe it will be surprised at the extent of the evil, and the danger to the health of the people. We cannot understand how any really honest man can but be awfully against all kinds of adulteration of food products.

We are free to say that we sincerely believe that were it not for the evil of adulteration, twice the amount of pure honey would be consumed by the public. This may seem like a strong utterance, but in view of the common fear that we know exists, that honey is so generally adulterated, we feel that we have only given the fact.

Let every bee-keeper sit right down and reply to those nine questions, and thus show the Government's special agent that at least one class of honest producers is in hearty accord with the effort being put forth. We can all hope that something tangible may then result therefrom.

Honey Apple-Butter.—Mrs. R. C. Aikin, of Colorado, gives the following recipe for making honey-apple-butter, in Gleanings:

"One gallon good cooking apples; one quart honey; one quart honey-vinegar; one heaping teaspoonful ground cinnamon. Cook several hours, stirring often to prevent burning. If the vinegar is very strong, use part water."

The Buffalo Convention Report we had hoped to have begun several weeks ago, but so far we have not received it from the Secretary. We trust that it may be received at this office very soon, so that we can complete it before Jan. 1, 1898.

Honey as Food is the name of a 24-page pamphlet, 3¼x6¼ inches, which we are now printing for general distribution among those who should be users of honey. It is just the thing for bee-keepers to hand to every one of their customers, and also to those whom they would like to have as customers. It is very handy in size—just right to go into an ordinary business envelope. It contains 12 illustrations, five of which are somewhat comic, and help to make it attractive. There is a blank space for your name and address. About ⅔ of the pamphlet was written by Dr. Miller, and then we added thereto many new and valuable honey recipes—for cooking and for medicinal purposes. In all, it makes a neat little pamphlet. Send name and address and we will mail you a sample of "Honey as Food."

Prices for quantities, postpaid—25 for 30 cents; 50 for 50 cents; 100 for 85 cents; 200 for $1.40. By express, not prepaid, 500 for $3.00; 1,000, $5.00.

☞ Now let the orders come in, and we will do our best to fill them promptly. Remember, a sample copy is mailed free.

The Weekly Budget.

MRS. E. H. STEWART, of Ontario, Canada, wrote us Oct. 18, that her "bees are in fine condition for winter."

MR. W. A. SELSER, WIFE, AND BABY, of Pennsylvania, are shown in Gleanings for Oct. 15. They are a fine trio.

MR. J. T. CALVERT—business manager of The A. I. Root Co., called on us Friday, Oct. 22. He reported a very satisfactory year's business for 1897.

MR. A. L. SHIRCK, of Peoria Co., Ill., wrote us as follows Oct. 7:

"I cannot get along without the American Bee Journal. I took it eight years in succession up to last February, at which time I had it stopt. But send it along again."

MESSRS. G. B. LEWIS CO., of Wisconsin, were recently represented in Chicago by Mr. Lewis, Jr., and Mr. Martenson, the manager of the firm. We were favored by a short call from the two gentlemen, who informed us that altho they had had a prosperous trade this year, they anticipated a larger one in 1898. We hope they may have it, for we believe there are no better manufacturers of and dealers in bee-keepers' supplies than The G. B. Lewis Co.

MR. W. Z. HUTCHINSON reacht his home in Michigan about Oct. 15, after having made his annual rounds of the State Fairs again. Writing us one week after his return, he said:

"I stopt to see Mrs. Hutchinson on my way home. She was better than I had ever hoped to see her. Of course, there is a possibility of her recovery—there is at least a ray of life. Ivy is as well as ever."

Of course, all of Mr. Hutchinson's friends will be pleased to learn these encouraging words.

THE FRANK B. WHITE CO., of Chicago, gave their sixth annual banquet at the Auditorium, Thursday evening, Oct. 21. Plates were provided for about 200 guests—publishers and editors of agricultural papers, and also the advertisers who patronize the columns of those periodicals. The White Co. are specialists in their line of placing the advertising for others in the best mediums circulating among the farmers. And they are a great success at the business. They have just recently taken offices in the Fischer Building, on the 17th floor. They are "up in the world" in two ways now. They deserve success, hence they have it.

MR. A. I. ROOT, the senior editor of Gleanings, seems to have discovered that "kind word" that Henry Alley felt called upon to say concerning our esteemed contemporary, and which we referred to on page 665. Under the heading, "Everything in the Bee-Line Worth Printing," Mr. Root wrote thus about it:

"On page 721 of our Oct. 1st issue, our old friend Henry Alley was permitted to say in the Kind Words department that Gleanings contains about everything in the bee-line worth printing. Of course, he gave this as his *opinion.* I have said once before that I did not mean to let anything of that kind appear in print again. No doubt Friend Alley *meant* exactly what he said; but it was in a private communication, and not intended to be put into a public journal. Had the writer not been off on one of his wheel rides when said pages were made up, there would have been at least a modification of *that* kind word, for it is certainly not true. Neither Ernest nor myself believe it, and it would be unkind and discourteous to the editors of other bee-journals to even insinuate that ours is the *best* one of the lot."

BEE-BOOKS

SENT POSTPAID BY

George W. York & Co.,

Chicago, Ills.

Bees and Honey, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages, and 245 illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold-lettered. Price, $1.00.

Langstroth on the Honey-Bee, revised by Dadant—This classic in bee-culture, has been entirely re-written, and is fully illustrated. It treats of everything relating to bees and bee-keeping. No apiarian library is complete without this standard work by Rev. L. L. Langstroth—the Father of American Bee-Culture. It has 520 pages; bound in cloth.

Price, postpaid, $1.25.

Bee-Keepers' Guide, or Manual of the Apiary, by Prof A. J Cook, of the Michigan Agricultural College.—This book is not only instructive and helpful as a guide in bee-keeping, but is interesting and thoroughly practical and scientific. It contains a full delineation of the anatomy and physiology of bees. 460 pages; bound in cloth and fully illustrated.

Price, postpaid, $1.25.

Scientific Queen-Rearing, as Practically Applied, by G. M. Doolittle.—A method by which the very best of Queen-Bees are reared in perfect accord with Nature's way. 176 pages, bound in cloth, and illustrated. Price, $1.00.

A B C of Bee-Culture, by A. I. Root.—A cyclopædia of 400 pages, describing everything pertaining to the care of the honey-bees. It contains 300 engravings. It was written especially for beginners Bound in cloth. Price, $1.25.

Advanced-Bee-Culture, Its Methods and Management, by W Z. Hutchinson.—The author of this work is too well known to need further description of his book. He is a practical and entertaining writer. You should read his book. 90 pages, bound in paper, and illustrated. Price, 50 cts.

Rational Bee-Keeping, by Dr. John Dzierzon—This is a translation of his latest German book on bee-culture. It has 350 pages; bound in paper covers, $1.00

Bienen-Kultur, by Thomas G. Newman.—This is a German translation of the principal portion of the book called BEES OF HONEY. 10_ page pamphlet. Price, 40 cents.

Convention Hand-Book, for Bee-Keepers, by Thomas G. Newman.—It contains the parliamentary law and rules of order for Bee-Conventions—also Constitution and By-Laws, with subjects for discussion, etc. Cloth, gold-lettered. Price, 25 cts.

Thirty Years Among the Bees, by Henry Alley.—Gives the results of over a quarter-century's experience in rearing queen-bees. Very latest work of the kind. Nearly 100 pages. Price, 50c.

Practical Hints to Bee-Kee-Keepers—by CHAS. F. MUTH. Also contains a Foul Brood Cure and How to Winter Bees. 40 p.; 10 cts.

Why Eat Honey?—This Leaflet is intended for FREE distribution, to create a Local Market. 100 copies, by mail, 30 cts.: 500 for $1.25; 1000, $2.00.

How to Keep Honey and preserve its richness and flavor. Price same as Why Eat Honey.

Alsike Clover Leaflet.—Full directions for growing. 50 for 25 cts.; 100 for 40 cts.; 200, 70c.

Apiary Register, by Thos. G. Newman.—Devotes two pages to a colony. Leather binding. Price, for 50 colonies, $1.00; for 100 colonies, $1.25.

Preparation of Honey for the Market, including the production and care of comb and extracted honey. A chapter from BEES AND HONEY. Price, 10 cents

Bee-Pasturage a Necessity.—This book suggests what and how to plant It is a chapter from BEES AND HONEY. Price, 10 cents.

The Hive I Use, by G. M. Doolittle. It details his management of bees, and methods of producing comb honey. Price, 5 cents.

Dr. Howard's Book on Foul Brood.—Gives the McEvoy Treatment and reviews the experiments of others. Price, 25 cts.

Silo and Silage, by Prof. A. J. Cook.—It gives the method in operation at the Michigan Agricultural College. Price, 25 cts.

Winter Problem in Bee-Keeping, by G. R. Pierce. Result of 25 years' experience. 30 cts.

Handling Bees, by Chas. Dadant & Son.—A Chapter from Langstroth Revised. Price, 8 cts.

History of Bee-Associations, and Brief Report of the first 20 conventions. Price, 10 cts

Foul Brood Treatment, by Prof. F. R. Cheshire.—Its Cause and Prevention. Price, 10 cts.

Foul Brood, by A. R. Kohnke.—Origin, Development and Cure. Price 10 cts.

Bee-Keeping for Profit, by Dr. G. L. Tinker.—Revised and enlarged. It details the author's "new system, or how to get the largest yields of comb or extracted honey." 80 p.; illustrated. 25c.

Commercial Calculator, by C. Ropp.—A ready Calculator, Business Arithmetic and Account-Book combined in one. Every farmer and business man should have it. No. 1, bound in water proof leatherette, calf finish. Price, 40 cts. No. 2 in fine artificial leather, with pocket, silicate slate, and account-book. Price, 60 cts.

Green's Four Books, by Chas. A. Green.—Devoted to, 1st, How We Made the Old Farm Pay; 2nd, Peach Culture; 3rd, How to Propagate Fruit-Plants, Vines and Trees; 4th, General Fruit Instructor. Nearly 120 pages. Fully illustrated. 25 cts.

Garden and Orchard, by Chas. A. Green—Gives full instructions in Thinning and Marketing Fruits; Pruning, Planting and Cultivating; Spraying, Evaporation, Cold Storage, Etc. 94 pages, illustrated. Price, 25 cts.

Kendall's Horse-Book.—35 pictures, showing positions of sick horses, and treats on all their diseases. English or German. Price, 25 cts.

Lumber and Log-Book.—Gives measurements of lumber, logs planks; wages, etc. 25c.

Maple Sugar and the Sugar Bush, by Prof. A. J. Cook.—Full instructions. Price, 35 cts.

Grain Tables, for casting up the price of grain, produce, hay, etc. Price, 25 cts.

Capons and Caponizing, by Dr. Sawyer, Fanny Field, and others.—Illustrated. All about caponizing fowls, and thus how to make the most money in poultry-raising. 64 pages. Price, 30 cts.

Our Poultry Doctor, or Health in the Poultry Yard and How to Cure Sick Fowls, by Fanny Field.—Everything about Poultry Diseases and their Cure. 64 pages. Price, 30 cts.

Poultry for Market and Poultry for Profit, by Fanny Field.—Tells everything about the Poultry Business. 64 pages. Price, 25 cts.

Turkeys for Market and Turkeys for Profit, by Fanny Field.—All about Turkey-Raising. 64 pages. Price, 25 cts.

Rural Life.—Bees. Poultry, Fruits, Vegetables, and Household Matters. 100 pages. 25 cts.

Potato Culture, by T. B. Terry.—It tells how to grow them profitably. Price, 40 cts.

Hand-Book of Health, by Dr. Foote.—Hints about eating, drinking, etc. Price, 25 cts.

Bee-Keepers' Directory, by H. Alley.—Latest methods in Queen-Rearing, etc. Price, 50c.

Book Clubbing Offers.

(Read Carefully.)

The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only ONE book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted, see postpaid prices given with the description of the books on this page. Following is the clubbing-list:

1.	Langstroth on the Honey-Bee	$2.00
2.	A B C of Bee-Culture	2.00
3.	Bee-Keeper's Guide	1.75
4.	Bees and Honey [Cloth bound]	1.65
5.	Doolittle's Scientific Queen-Rearing	1.75
6.	Dr. Howard's Foul Brood Book	1.10
7.	Advanced Bee-Culture	1.30
9.	Bienen-Kultur [German]	1.20
11.	Rational Bee-Keeping [Paper bound]	1.75
12.	Thirty Years Among the Bees	1.30
13.	Bee-Keeping for Profit	1.15
14.	Convention Hand-Book	1.15
15.	Poultry for Market and Profit	1.10
16.	Turkeys for Market and Profit	1.10
17.	Capons and Caponizing	1.10
18.	Our Poultry Doctor	1.10
19.	Green's Four Books	1.15
21.	Garden and Orchard	1.15
23.	Rural Life	1.10
25.	Commercial Calculator, No. 1	1.25
26.	Commercial Calculator, No. 2	1.40
27.	Kendall's Horse-Book	1.10
30.	Potato Culture	1.20
32.	Hand-Book of Health	1.10
34.	Maple Sugar and the Sugar Bush	1.20
35.	Silo and Silage	1.10
36.	Winter Problem in Bee-Keeping	1.30
37.	Apiary Register (for 50 colonies)	1.75
38.	Apiary Register (for 100 colonies)	2.00
39.	Bee-Keepers' Directory	1.30

Muth's HONEY-EXTRACTOR Square Glass Jars.

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Send for our new catalog.
Practical Hints" will be mailed for 10c. in stamps. Apply to—
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Please mention Bee Journal when writing.

Honey - Clovers!

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
Alsike Clover	.70	$1.25	$3.00	$5.75
Sweet Clover (white)	.60	1.00	2.25	4.00
White Clover	.90	1.60	3.75	7.00
Alfalfa Clover	.60	1.00	2.25	4.00
Crimson Clover	.55	.90	2.00	3.50

Prices subject to market changes.

Add 25 cents to your order, for cartage, wanted by freight.

Your orders are solicited.

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1-lb., $4.50 per gross; discount on quantities. Sq. with Corks.

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We pay 26c cash, f. o. b. N. Y. City.
Catalog of Apiarian Supplies and Bees, Free.
I. J. STRINGHAM,
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Please mention Bee Journal when writing.

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Write for Special Bargain Circular of staple Harness and Vehicles.

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Read our book of voluntary testimonials from our customers, and see what they think of Barkley goods and business methods. It will pay you to do so. We are selling direct to consumers, saving you the traveling man's expenses and dealer's profit. Send for cat. and prices

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Famous "Barkley" Buggy, $41.00. Satisfaction guaranteed.

FRANK B. BARKLEY MFG. CO. CHICAGO, ILL.

Please mention Bee Journal when writing.

General Items.

Too Dry for Bees.

I have about 30 colonies of bees, and I have been working for increase this year. I got about 600 pounds of comb honey. It has been too dry for bees this year.

T. E. HALEY.

Sanders Co., Nebr. Oct. 14.

Bees Did Fairly Well.

I have seven colonies of bees. They did fairly well, the best producing 72 pounds of nice comb honey. I am indebted to the Bee Journal for a part of my success.

OLIVER S. JOHNSON.

Cedar Co., Iowa, Oct. 10.

Bees Have Done Poorly.

My bees have done very poorly this year. I have the lightest crop I ever got. The bees stored nothing after Aug. 20, and are not in good condition for winter. But I must have the Bee Journal.

C. P. DOW.

Dakota Co., Nebr. Oct. 17.

Good Queens Important.

Doolittle's "Scientific Queen-Rearing" I think every bee-keeper should have; in fact, I think more of it than any book I ever read. I, like Mr. D., think the most essential part of a good colony of bees lies in a good queen. I have had a good deal of experience in buying queens for the last 3 years, from different breeders which I may write up some other time.

H. GALLOWAY.

Skagit Co., Wash., Oct. 11.

Various Things on Bees.

While meditating and contemplating upon the past, present and future, and feeling somewhat sad, I was quite revived by the arrival of the esteemed treasurer of our Southern Minnesota Bee-Keepers' Association, and her ever joyful and agreeable husband, as they are always welcome guests. After a long conversation with them, and we had dinner together, talkt the bee-business from center to circumference, they returned home, to Winona. They are respected for their good company, and also for their knowledge of the bee-business, in which they are engaged.

Our honey was a very short crop in Southern Minnesota, but we will live in hopes if we do die in despair. We believe in progress, and do not get discouraged over one failure. We should begin now to prepare for next year's harvest, by being careful not to put any colonies into winter quarters that are without two things—a good queen and plenty of stores: then well protected for winter.

I will not pretend to advise any one as to the best way to winter bees, as there are so many ways and all claim success, but be sure to keep them dry and warm, and also keep the mice out of them during the winter. I heard an old bee-keeper say that he lost ¾ of his bees by the mice. I would advise bee-keepers to keep the mice out of the bee-hives, as I do not believe that bees and mice winter well together.

I know another man that lost half of

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The Monette Queen-Clipping Device WORKS LIKE A CHARM. With it I have clipped 30 queens, all in one day, when examining my bees. WM. STOLLEY, Grand Island, Nebr.

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I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now.

DR. GEO. LACKE, Newburgh, Ind.

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A. G. WILSON,
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are the package to put honey up in, and work up a home trade. I can furnish you with ⅓ pint tin top, 24 doz. to the barrel, at $5.00 per barrel; ½ pint size, 20 doz. to the barrel, $5.00 per barrel. Cash must accompany all orders.

Plain Labels for above Glasses — 2½x3, 250 for 40 cts., or $1.25 per 1000.

H. G. QUIRIN, Bellevue, Ohio.
42Atf Please mention the Bee Journal.

Queens and Queen-Rearing.—If you want to know how to have queens fertilized in upper stories while the old queen is still laying below; how you may *safely introduce* any queen, at any time of the year when bees can fly; all about the different races of bees; all about shipping queens, queen-cages, candy for queen-cages, etc.; all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know—send for Doolittle's "Scientific Queen-Rearing"—a book of over 170 pages, which is as interesting as a story. Here are some good offers of this book:

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his bees by packing them in wet saw-dust. I pack my bees in saw-dust, but have it perfectly dry, and they do well.

As the cold winter is approaching I am preparing to spend the cold days in getting ready for next summer.

I was well pleased with the discussion in the Bee Journal about the bee-space. If a man does not want a bee-space he has a perfect right not to have it. When I first commenced keeping bees I had all kinds of hives, and all sizes of sections and bee-spaces from ¼ to ¾ of an inch, and when I took off a super I would get a common dinner-plate full of comb and honey. I have taken and remodeled all of my hives and supers, so that my supers or brood-frames will fit every hive. I have come to the conclusion that ¼ of an inch is space enough. I use the T tin, and have discarded all of my pattern slats ; you could not chase me fast enough to give me 1000 of them, except for kindling wood. But this is a free country, and a man has a right to use them if he wants to. Another thing is, the tight bottoms. I have discarded them also.

I would not know how to get along without the Bee Journal, and I often wonder how some people pretend to get along without it. E. H. HUFFMAN.

Winona Co., Minn., Oct. 11.

◆

Had a Big Honey-Flow.

We had a big honey-flow in Bucks county this year, and I have more honey than all the other bee-keepers put together. ELISHA CAREY.

Bucks Co., Pa., Oct. 21,

◆

Bees Did Well.

My bees have done very well this year. The American Bee Journal is a great help to me, and I look forward to Friday morning of each week, as it seldom fails to come then. JAMES IVES.

Burlington Co., N. J.

◆

Beginning with Bees.

I knew nothing about bees till we bought 3 colonies in box-hives last spring. We were anxious to get them in shape so we could do something with them, so my husband made one hive and that did not just suit so he made another for the second colony, and still another for the third, so you see we had 3 colonies in 3 different kinds of hives, all different size frames, so we could not do much with them. We made a total failure this year with bees, but we take the Bee Journal now (or my mother in our family does) and hope to do better if we can get started. MRS. RUTH F. STULL.

Clay Co., Fla. Oct. 5.

◆

Cool, Wet Summer.

We have had a cool, wet summer in this part of the State. White clover, altho plentiful, yielded but little. Basswood was damaged by the caterpillar, but buckwheat and second crop of red clover yielded very well. I have a crop of about 1300 pounds of comb honey from 30 colonies, spring count, and I have increast to 69 by natural swarming. My bees were about half in box-hives in the spring, but I have the most of them in 8 and 9 frame dovetail hives now. Most of my bees are Italians and hybrids.

BEES FOR SALE.

About 90 Colonies of Italians. Any one wanting to start an apiary cannot do better than to call on Dr. E. Gallup, Santa Ana, Calif., and examine the Bees before purchasing elsewhere. Double sets of Combs in Langstroth-Simplicity Hives, and warranted a superior lot of Bees for business. Correspodence solicited. **Dr. E. GALLUP,**
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DIRECTIONS.—The Tool is fastened securely in the Holder by a set-screw and can be ground to any desired bevel by inserting the arm of the Holder into a higher or lower notch of the standard. While turning the crank with the right hand, the left rests on an steadies the Holder; the Tool is moved to the right or left across the stone, or examined while grinding, as readily and in the same way as if held in the hands.

For grinding **Round-Edge Tools**, the holes in the standard are used instead of the notches.

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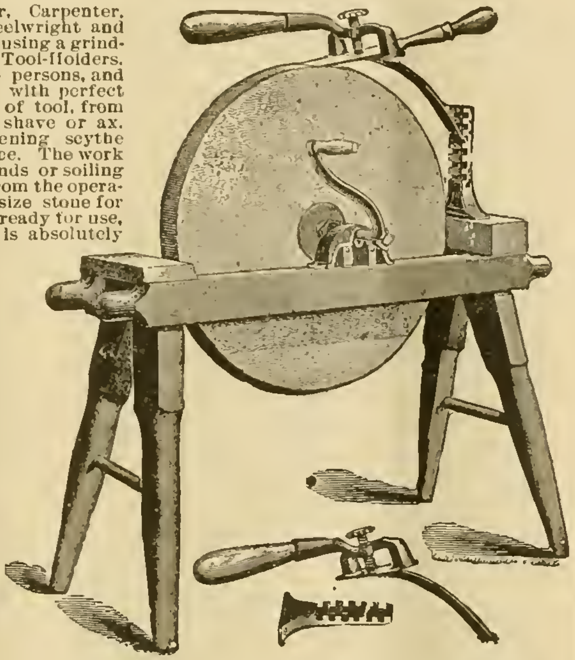

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Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

See the premium offers on page 694!

I have two colonies of goldens, for looks, and sent to Texas for a Carniolan queen about two months ago, but she has not been heard from yet. GEORGE STOUT.

Hennepin Co., Minn., Oct. 15.

* * *

Plesed with the Bee Journal.

I am very much pleased with the American Bee Journal. I would not be without it for twice its cost. I have gained much information from it.

W. H. MOORE.

Trinity Co., Tex.

* * *

Bees Did Fairly Well.

My bees did fairly well this season, better by far than last year, averaging from 20 to 50 pounds per colony. White clover did real well this year, but basswood was a failure. I am looking for a good season next year; as basswood has failed the last two years, it surely will yield again next year.

In February, 1898, when my time is out for the Bee Journal, just look for a renewal, as prosperity is here; our money is sound, and most of the farmers are happy. Why should they not be? Wheat at one dollar, potatoes, cotton, hogs and cattle way up—everything all right. F. N. BLANK.

Cooper Co., Mo., Oct. 22.

* * *

Unfavorable Season—Queens Fighting

Our season has been very unfavorable for honey. I have an apiary of 9 colonies, and have taken but very little surplus honey this season, as the month of June was very dry and chilly, with chilly winds, which was very discouraging to the bee-keepers here. I was in hopes that the alfalfa would produce plenty, but I was disappointed as the bees did not work the first bloom at all, and the second bloom but very little, so we did not get much till the American bee-weed, or stink-weed as it is called here, came in bloom, and then it was not as good as it usually is on account of the June drouth.

I have read the arguments between C. B. Bankston and Dr. C. C. Miller, with interest, as I have somewhat of an experience this summer in having two queens in one hive. One queen was one year old, and there was another one hatcht July 10, 1897, so I watcht that hive expecting it to cast a swarm, but it did not. So for the novelty of it I kept watching. July 20 the young queen began to lay, and the mother and daughter workt happily together the rest of the season, or at least up to Sept. 20, and then I was called from home on business, and since my return I have not had time to look at them. Still, two queens will fight, for I had some experience in that also, so I can say without a doubt that they will, and they won't fight. I can also say that bees are some different in experiences.

I take great pleasure in reading the Bee Journal, for it has been a great help to me. J. A. LEWIS.

Navapa Co., Ariz., Oct. 17.

* * *

Bee-Keeper's Guide—see page 701.

Getting Rid of Black Ants.

Mr. W. A. Varian, on page 590 asks how to keep black ants out of a honey-house. If he will dissolve some corrosive sublimate in water, and with a small brush paint around all cracks and crevices where ants enter, I think they will disappear. I have found it effective. There is a patented article—small tin box about 1½ inches square—which if set on a shelf or near the entrance-way will drive them away. It sells for 25 cents.
GEO. H. STIPP.

Bees Did Well.

We did well here this year. I started with 17 colonies spring count, increast to 37, and took 1800 pounds of as fine white clover as can be. Success to the "Old Reliable."
JAMES ARNOT.
Lafayette Co., Wis., Oct. 25.

Good Fall Flow of Nectar.

Bees in this section did a big business the first of the season, but after July 10 almost a failure owing to the drouth. We always have a good fall flow of nectar.
D. PATTERSON.
Decatur Co., Iowa.

Simpson Honey-Plant.

Is the stalk and seed I send the noted Simpson honey-plant? if not what is it? I have never noticed any of it before, and there is only a small cluster of this growing on the bank of the creek. Bees work on it from early morning till dark. I do not know when it began to bloom as I did not notice it till the bees were working on it.

I had a fair honey-flow the first part of the season, but very light the last part, on account of dry weather.
W. H. MEANS.
Greenwood Co., Kans.

[Yes, we are of the opinion that the sample of seed you send is similar to what Mr. Williams has furnisht us.—ED.]

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Beeswax Wanted.
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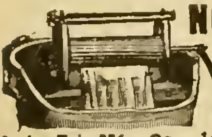

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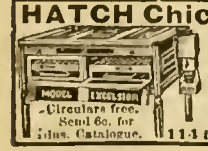

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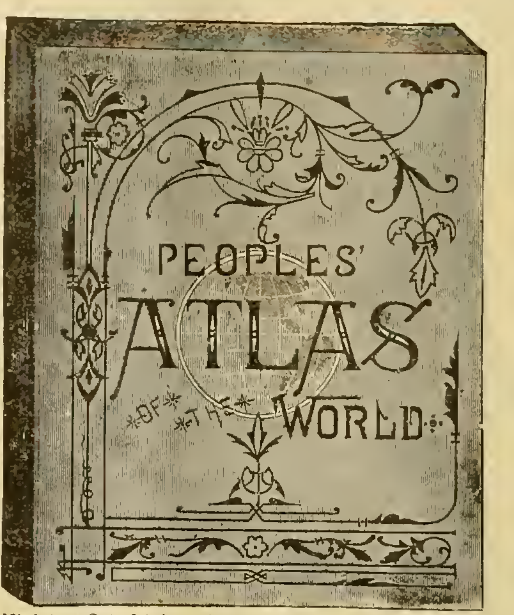

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New Subscribers for November and December, 15 cts. See page 694.

HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Oct. 19.—Fancy white 11 to 12c. No. 1, 10c.; fancy amber, 8 to 9c.; No. 1, 7.; fancy dark. 8c.; No 1. 7c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 4c. Beeswax, 26 to 27c.

There is a fair trade in honey, despite the amount that is being peddled about the city by parties who are coming in with it, and who take lower figures than quoted, as a rule. This however is customary when local yield is large.

San Francisco, Calif., Oct. 13.—White comb, 1-lbs., 7 to 9c; amber comb. 4 to 6c. Extracted, white, 4 to 4⅜c.; light amber, 3½ to 3¾c.; dark tule. 1¾ to 2¼c. Beeswax, fair to choice, 22 to 24c.

Shipments of over 400 cases extracted were made the past week by sailing vessel to England. More could be placed on foreign account, but at such low figures—3½ to 4c. for light amber to water white—that most holders refuse to accept. Slightly firmer prices rule on local account, but trade is of a light order.

Cincinnati, Ohio, Oct. 19.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.; No. 1 amber, 8 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½ to 4c. Beeswax, 20 to 25c.

Demand for honey is very slow, owing to warm weather and an abundance of fruit on our markets. Demand is good for beeswax.

Indianapolis, Ind., Oct. 19.—Fancy white. 11 to 13c.; No 1, 9 to 10c.; fancy amber, 9 to 10c. Extracted, white. 5 to 6c. Beeswax, 25c.

Demand for fancy white comb honey and fancy white extracted is exceptionally good, while there is almost no demand for dark or amber comb or extracted honey.

Detroit, Mich., Oct. 20.—Fancy white, 11 to 12c.; No. 1. 10 to 11c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c; fancy dark, 8 to 9c. Extracted, white, 5 to 5½c.; amber, 5c.; dark, 4c. Beeswax, 25 to 26c.

Honey is selling fairly well, with supply up to the demand.

Milwaukee, Wis., Oct. 19.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 8 to 10c. Extracted, white, 5½ to 6c.; amber, 4 to 5c.; dark, 4 to 4 1-2c. Beeswax, 26 to 27c.

This market for honey is in a very fair condition, and the consuming capacity is being enlarged. The supply is very fair, although we think there will be room enough for further shipments. The general quality of the comb honey so far is an improvement over last season, which fact we are pleased to note, and hope it will continue, more and more.

Cleveland, Ohio, Oct. 19.—Fancy white. 12½ to 13c.; No. 1, 11 to 12c.; fancy amber, 9 to 10c.; No. 1, 8c.; fancy dark. 7c.; No. 1. 6c. Extracted. white. 6 to 6½c.; amber. 5 to 5½c. Beeswax, 28 to 30c.

The demand for honey is increasing and we believe it will continue as the weather gets colder. We would advise shipping white honey, but dark is not moving sufficiently to encourage shipments.

Buffalo, N. Y., Oct. 19.—Fancy white. 11 to 12c.; No. 1, 10 to 11c.; fancy amber, 8 to 9c.; No. 1, 7 to 8c.; fancy dark, 6 to 7c.; No. 1, 6 to 7c. Extracted white, 5 to 6c.; amber, 4 to 4½c. Beeswax. 24 to 28c.

Receipts are light and demand is increasing. Trade is improving, with prospects of being sustained.

New York, N. Y., Oct. 20.—Fancy white, 12c.; No. 1. 10 to 11c.; fancy amber, 0 to 10c.; No. 1, 9c.; fancy dark, 8½ to 9c.; No. 1, 8 to 8½c. Extracted, white, 5 to 5½c.; amber, 4½ to 5c.; dark, 4c. Beeswax, 26 to 27c.

During the past two weeks the market has not been so active, probably on account of the warm weather. When cooler weather sets in to stay, we expect a more active demand again. Southern in barrels is in good demand at 50c. per gallon. Beeswax in good demand.

Minneapolis, Minn., Oct. 19. — Fancy white, 10½ to 11½c.; fancy amber, 9¼ to 10c. Extracted, white, 5½ to 5¾c.

The market could stand more goods, if desirable quality. Fair demand for all grades, but fancy meets with ready sale. Would advise shipping now.

Kansas City, Mo., Oct. 20.—Fancy white. 12c.; No. 1. 10 to 11c.; No. 1 amber, 8 to 10c.; Extracted, white, 5½ to 6c.; amber, 5c.; dark, 4c. Beeswax. 22 to 24c.

Receipts of comb honey are large; extracted is light.

Philadelphia, Pa., Oct. 23.—Fancy white, 13 to 14c.; No 1. 12c.; fancy amber, 10c.; No. 1. 9c.; fancy dark, 8c.; No. 1, 7c. Extracted, white, 5 to 6c.; amber, 5c.; dark, 4 to 4½c. Beeswax, 26 to 27c.

Honey is moving very lively; our market uses more now than any time during the year. Beeswax in good demand; very light supply.

Boston, Mass., Oct 22. — Fancy white. 13c.: No. 1. 11 to 12c.; fancy amber. 10c. Extracted. white, 6 to 7c.; amber, 5 to 5½c. Beeswax, 26c.

While the demand is fair, it is not as good as it should be at this season; but with cold weather we look to see a better demand.

Albany, N. Y., Sept. 25.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c; fancy dark, 8 to 9c.; No. 1. 7 to 8c.

Comb honey is arriving quite freely and moving off nicely at quotations.

St. Louis, Mo., Oct. 21.—Fancy white, 11 to 12c.; amber, 9 to 10c.; dark, 7 to 8c. Extracted, white, 5¼ to 6c.; light amber. 4½ to 5c.; amber, 4 to 4½c. Beeswax, choice yellow, 26c.; prime, 25 to 25½c.; dark, half price.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.
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C. C. CLEMOMS & Co., 423 Walnut St.

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BATTERSON & CO., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Cleveland, Ohio.
A. B. WILLIAMS & CO., 80 & 82 Broadway.

Philadelphia, Pa.
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St. Louis, Mo.
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Doctor's Hints

By Dr. PEIRO.

Central Music Hall, * CHICAGO, ILL.

Peanuts have been greatly extolled as a successful diet in dyspepsia and consumption. Admitting the oil they contain is very rich in muscle-building material, besides being very palatable nourishment, I have known many who could not digest them, and hence proved harmful. But when they can be eaten with comfort they are no doubt excellent. They are so easy to raise in your garden that all boys and girls should take pleasure in having a patch of them.

Elderberry-wine is an article all good mothers should make and keep for special occasions. The berries are usually so easy to obtain, have little acid, hence require little sugar, making it the cheapest good wine that can be made. Well bottled and placed in a cool place it steadily grows better with age. It is one of the gentlest, most palatable, and effective mild stimulants to patients convalescing from any form of lung trouble. A tablespoonful every two or three hours works wonders in the sufferer just emerging from an attack of pneumonia or bronchitis. It is also excellent in whooping-cough and scarlet fever.

Singing is a greater blessing than most persons are aware of. Not that every one that tries succeeds in pleasing an audience, but the very exercise greatly tends to develop the lungs and thus overcome tendencies to disease of these organs. The more air—rather the oxygen in the atmosphere—inhaled, the better for any one, and singing is the best means to this end. There are professional vocalists who can inhale about four times as much as ordinary persons, due to the constant practice of singing.

Mrs. Ellen C. Bland, on page 537, gives me "fits" on the pork question. I am glad of it—glad that she has the spirit to contend for her opinion. And I have no doubt if all pork that is eaten were as carefully fattened as this lady has done, it would go far in making it a healthy diet. But, dear Mrs. Bland, you know that is far from the general fact. There is only one certain, and to me delightful, way of settling this question between us—it is for me to come and sample your hog product, with the addition of nice raised biscuits, and honey. Please encourage the idea.

DR. PEIRO.

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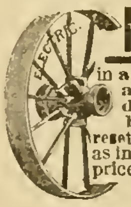

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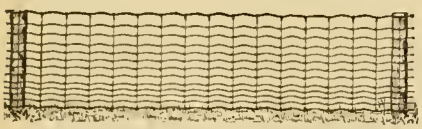

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The Review at Reduced Rates.

The Bee-Keepers' Review is $1.00 a year, but, for the sake of getting it into new hands, and being able to begin the year with a large list, I will, until Jan. 1st, send free to each new subscriber, a copy of "Advanced Bee-Culture," a 50-ct. book of nearly 100 pages that gives briefly but clearly the best methods of management from the time the bees are put into the cellar in the fall until they are again ready for winter—32 chapters in all. Those who prefer can have, instead of the book, 12 back numbers of the Review, the selection to be mine, but no two numbers alike All who send $1.00 now will receive the last four issues of this year free, and the Review will be sent to the end of 1898. If not acquainted with the Review send 10 cents for three late but different issues.

W. Z. Hutchinson, Flint, Mich.

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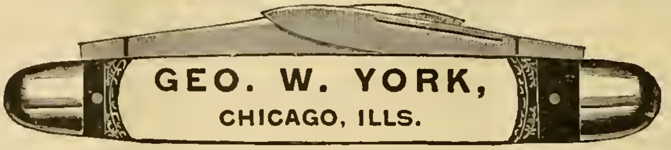

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The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

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Contributed Articles

Migratory Bee-Keeping in the South.

BY A. F. BROWN.

I am askt by the editor to give a few items on the above subject, touching especially upon the small details connected with such line—those brought out in the everyday life of one following the production of paying crops of honey by moving the colonies from place to place as seasons and blossoms offer inducements.

The subject is well worthy the attention and careful consideration of every thoughtful honey-producer, especially to those who live in localities that are more or less uncertain, and at the same time are within reach by a short move of some locality that furnishes a surplus from some other source, or at a different season of the year than at the home location.

My experience in migratory bee-keeping covers about five years' active work in moving from 150 to 250 colonies, three or four times each year, and covering distances of from 20 to 200 miles at each move. Most of my moves were of distances of 50 to 150 miles.

In this State (Florida) there are several classes of soils, the timber growth and flora of each being quite distinct. In some the surplus honey-flow comes early in the spring, in others it may be a couple of months later, or at midsummer, and still others in the fall or midwinter, consequently to one informed on the localities it becomes quite apparent that by being in position to move from one locality to another makes the success of securing a crop just so much more sure.

With the exception of a very few short moves, I have used the railroads, and places accessible by water transportation, for all of my movings. In going long distances I prefer the railroad, for the saving of time, as well as expenses. For distances under 25 miles I have found teams the most satisfactory. Transportation by water on boats disturbs the bees the least of all, yet the actual gain therefrom is small.

After the colonies are once *properly packt* and ready for a move, *the greatest point of success lies in getting them to their destination and opened out for a "flight" at the earliest moment possible.* In my experience I have found colonies to stand three or four days' bumping and jolting over roads and railroads better than they withstand a week's confinement on board a "lighter" towed by a steam tug-boat. I find it is the long confinement that tells on the *vitality* of the bees. Colonies given *plenty of room, plenty of ventilation, and space to cluster off from* (and away from) *the combs of brood*, with ample provision of honey and *water*, will stand transportation during our hottest weather by hauling with teams or on railroads, providing you do not keep them confined more than four or five days. I endeavor to accomplish my moves in a space not exceeding three days' confinement for the bees, and only once have I lost any number of colonies. In fact, I seldom lose any colonies. A few old bees in nearly all colonies will die, but I think it is only about the actual number that die each day when in their normal condition.

Covering about 20 moves in five years, I have never kept bees more than three or four months at a time in one locality, generally about two months, and I was off for some other pasture, frequently 150 or 200 miles distant.

When I first commenced moving bees, I knew very little of the requirements for success. My first heavy losses were from loss of *unsealed brood*. To overcome this I found *water* almost an absolute necessity. Give each colony two combs (about two quarts) of water placed next the sides of the hive, and the loss of brood will be greatly lessened. To fill the combs with water, lay them in the bottom of a tub or barrel (barrel is best), and pour water from a dipper held three feet above. When one side is full turn it over and fill the reverse side. One Langstroth frame will hold about a quart of water.

Ample ventilation is another big item in successful moving of bees. I find a rim three inches deep, the same size as hive, covered with wire-cloth, the proper thing. Put one of these on the bottom and one on the top, and securely fasten. I have tried many kinds of fastenings, and find common place laths cut the right length to reach from the bottom screen to the top one, four to each hive, one nailed at each corner, is the simplest and *best*—the *most secure* method of fastening screens and hive bodies solid.

In the front end of half of the screens have a ¾-inch hole bored. This allows an entrance for the bees, and you can put on the screens several days in advance of the day of moving, and when all is ready to move, a cork or plug fastens the entrance-hole.

Frames should be securely fastened in the hives, so they will not slide together or swing. As I use, and have used for years, the Hoffman style of frame, which is, as most are aware, self-spacing, I have no bother about this item.

In the few instances when I have had occasion to move colonies in loose-hanging-frame hives, I have fastened them securely by means of two small slats nailed one at each end on top of the end-bars down through and into the ends of the hive, then tip the hive up on its end, and stuff old newspapers in the bee-space between the end of the frames and the end of the hive. This fastens them securely.

If colonies have more than 20 or 25 pounds of honey in their combs, extract it, or enough to leave only this amount, for heavy combs of honey are liable to be jarred loose and be broken down.

The upper story of extracting-combs are left on, but all surplus arrangements in connection with comb honey should be removed, or the bees will "stain" them badly, and render unsightly for future use. Also, their clustering on the foundation starters will generally result in that coming down, and being lost, with the need of putting more in to take its place.

In loading bees in cars (try always to secure cattle cars) you need a number of 1x2 inch strips to lay several on the floor to raise the first tier of hives off from the floor, to allow ventilation; then lay more on top of the tier to raise the second tier, and thus all the way throughout the car.

I find that 250 colonies in two-story hives make a very comfortable carload, tho more can be put in if care is used. Be sure the end ventilators of the car are open, and then leave the doors wide open so that when the train is in motion a strong current of air rushes through and among the bees. If the car has ventilators on top, turn the "hood" so as to carry a current of air down into the car, and thus help to keep things cool. But whenever possible secure open cattle cars, for these are the finest self-ventilators out. It should be needless to say, yet it is well worth repeating, to load all colonies on cars with combs running lengthwise of the car, parallel with the iron rails of the track, never crosswise. In hauling on wagons load, where practical, so the combs stand crosswise of the wagon and road. I have used common, heavy farm wagons without springs, and in all my hauling, of hundreds of colonies, from a few hundred yards to 20 miles, I have seldom had a comb to break down—certainly not one out of five hundred—and I have traveled over some very rough roads; but, as I have said above, my combs are principally in Hoffman frames, and most have three horizontal wires to the frame.

When arriving at the destination open the hives as soon as possible, so the bees can have a flight. If there is honey coming in the bees will be at work within an hour—in fact, in less time, frequently.

To one moving around all over the country, a model, systematically arranged apiary is a thing not likely to be kept up long. When we can secure a field or open spot, order can be observed in arrangements; still, I have found most of my locations were in the woods, and the hives were scattered around about as they would happen to be shot out of a cannon, the hive-entrances facing every point of the compass.

As soon as possible after getting the hives placed and opened, I set each hive up on a couple of sticks of stovewood; this raises them about four inches from the ground, and is all the hive-stand I ever use nowadays. Two or three seasons I dispenst with alighting-boards, using the screen as a bottom-board, or removing it entirely and allowing the bees free access to come and go from the whole bottom of the hives.

Half way up on the front of the hives I had two 1½-inch auger holes bored, one above the other, with a 1⅝-inch space between them. At the center of this space was screwed a button 1⅝ inches wide and 4¾ inches long; by turning it the size of the entrances was enlarged the full width, or closed to only a single bee-space. These I found to be fine entrances, and the bees preferred them to the bottom entrance. I had 200 colonies arranged thus, and I liked the arrangement very much indeed. My hives at that time were all the 8-frame size, but now I would prefer for a general purpose hive the 10-frame size. In honey-flows I used the 8-frame size tiered three high. The big colonies gave good results, and I then made and put into use 50 16-frame hives, with the upper story in two parts of 8 frames each. In fact, I used 8-frame bodies for the upper stories. These hives I gave the name of "Jumbo." They have proved "Jumbo" in more than one way. With two queens in the lower story and 16 extracting combs above, one gets "a right smart bit" (as our Florida Crackers express it) of honey from one single colony. For extracted honey these "Jumbo" hives have many advantages, but are rather cumbersome for the "migrator."

For comb honey a hive that is shallow and square rather than oblong, and capable of expansion and contraction, is the hive of all hives. Then use the Capt. Hetherington tall section, and large yields of comb honey can be produced.

But comb honey cannot be produced to advantage by a man following migratory bee-keeping, his business lies solely in extracted honey. The 10-frame two-story Langstroth hive is the hive he will find the most advantageous. Outside of his hives and screens, his only tools needed are two or three tents, a good extractor, a couple of honey-knives, and two or three good smokers. Let the thousand and one odd traps "stop home." His handiest honey-package is a barrel. One of these with a screen half way up inside, and a 1x1 inch bar of wood across the top will make his uncapping-can. A small solar wax-extractor might be carried, but what is more practical in the line of his business is a square, double-tank galvanized-iron boiler. I have one 14 inches wide, 20 inches deep, and 30 inches long inside the tank; a little smaller at the bottom than at the top. There is a one-inch space between the two at the bottom. They cost about $5.00, one is worth a dozen solar extractors where there is any amount of wax to render. Have two or three pails of water in the outside tank, and the same in the inside one. Then put in the comb and keep adding more. When thoroughly melted, let stand till cool, then turn out the cake of wax, scrape off the residues on the bottom, and it is ready for market.

Volusia Co., Fla.

⁂

That "Detestable Bee-Space" Again.

BY C. E. MEAD.

But few have tried closed-end frames, and sealed tops tight down on top of the frames, or compared the wintering and springing results of closed-end and tops, and log and box hives, with the hanging frame that allows a free circulation of air both around the ends and over the tops of the frames. Why is it that so many practical apiarists advise closing the bees, by the use of two tight division-boards, to the exact number of spaces the bees actually occupy between the combs, and covering the frames on top tightly? To economize the heat, enable them to keep warmer, and to breed up faster in spring.

I have long practiced wintering bees in hives two stories high, packing in September. The top story contains three frames of solid sealed honey, and one of brood, with the queen on that frame. The brood is in the lower story under these four frames; the balance of the lower story filled out with light or partly-filled frames. I put ¼-inch boards over the two outside frames in the lower hive. The top hive has the four frames in the center of the hive, and two tight division-boards close to the frames of honey. I cover the four frames in the top hive with a ¼-inch board tight on the tops of the frames; fill the space between the division-boards and sides of the hive with sawdust; put on another body (or two empty supers) and fill in 8 inches of sawdust on top of the second story; put on a board cover with ½ inch sticks clear across under the cover, to let the packing dry out; then screw a board on the back of the three hive bodies, with paper underneath, and you can winter nuclei and have them strong for white clover.

In the southern part of the United States they do not have the "wintering problem," but do have plenty of propolis, and the separate frames, not touching end-bars, and hardly the top-bars, will be most practical and easy to handle. It takes no honor or glory from the keen perception, inventive and mechanical genius and scholarly attainments of Father Langstroth, if climatic severities compel us to adopt the Quinby principle in the frame hive.

Now, in a log or box hive all the combs are fastened to the top of the hive and sides, nearly to the bottom. Each comb acts as a division; the bees have only to keep the spaces warm that they occupy. I have tipt them back and found the piles of brown dust between the occupied spaces (indicating breeding and pollen consumption), and ice in the corners of the hives. They beat my hanging-frame hives in wintering. I have bought lots of hives where some of the old logs did not have bees to fill one-half of two spaces, and they would breed up so as to be ready for clover when transferred. I have been disgusted to see colonies of more than twice their size in loose and hanging frame hives dwindle away to nothing.

Now, what is the sensible conclusion? When the heat escapes over the tops of the frames and around the narrow ends, the bees must keep the whole hive warm to be comfortable. A small colony with this style of frame cannot do it. A large colony with old bees will exhaust their vitality and dwindle away, unless the hive is well protected by packing. With closed-end frames and tight top a quart of bees can breed up. A cold snap will not chill their brood. Ten bees will care for an inch square of brood in a box or log, or closed end and top frame hives. One inch of brood will average 50 bees, so they will increase in a geometrical ratio of 5 every 21 days, and more than that, after the first three crops of young bees. Now bees begin to breed in February, often earlier. March 1 you have many old and a few young bees; March 21 the old bees are dying fast, and your young bees are hatching equally fast, if in a box or tight frame hive. April 10 your bees are five times as strong, and nearly all young bees. May 11 they are 5x5, or 25 times as strong, and are ready for fruit and dandelion bloom.

I am so thoroughly convinced that the closed-end frame with tight top cover and deep hive is right for our climate, that I am going to adopt it. Cook Co., Ill.

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Rearing Brood in Winter—Paralysis, Etc.

BY THOS. THURLOW.

Since I wrote my last, I have had considerable experience in bee-matters that has been very interesting to me, and may be of some interest to the readers of the Bee Journal.

Winter Brood-Rearing.—There was no surplus honey in this vicinity last year, and fall came with very little honey in the hives, and, naturally, none too many bees; but I thought I would try to make them go through the winter, dividing what honey they had amongst them by keeping a sharp watch of them. So when the queens ceast laying, each one of 22 colonies was contracted to six Langstroth frames, standing on end in an inside case and packt between the case and two 10-frame bodies with ground cork, then a section-case on top with a cork cushion in it. There was not more than an average of 8 or 10 pounds of honey for each of them to winter on, and they were left to themselves until Feb. 16, 1897, when, after a violent two days' snow-storm, I had a chance to look at them—it was warm enough for them to fly a little. All were in the top of the frames against the cushion, and two colonies were dead—starved to death with honey below them. I saw that the rest must be fed—just as I expected to do when they were packt in the fall.

Shallow tin pans were made to set on the top of the frames; and wood covers for the inside case, of ⅜ inch thick stuff with a 1½ inch hole, covered with wire-cloth in the middle; and five ounces of sugar syrup (one pound of sugar to one pound of water), as hot as I could bear my finger in, was poured through the wire screen into the tin pan every night, just as late as I could see to do it, until about March 20, when there was another chance to look and see what they were doing. It was a disappointment; my expectations were to see brood-rearing going on extensively, but only a few had capt brood at all, and most of them only eggs. Instead of rearing brood they had stored the food in the tops of the combs, and even lengthened out the cells with new wax to do it. Still, feeding was kept up until the apricot bloom, about three ounces a day.

The utmost care was used not to jar the hives or to disturb the bees in the least—the covers came off easily, and the cushions were turned back just far enough to pour the food through the wire screen. After the first few days, it was amusing to see them boil over into the shallow pan and on the under side of the screen, and lap the liquid as it came in. I certainly thought that meant brood, but it didn't, the egg-layer wasn't in it. My conclusion was this: *It's folly to feed bees to induce brood-rearing in the winter months.*

The last spring was a good one for bees, and they bred up fast after the weather began to get warm. There was more honey gathered from fruit-bloom than I ever knew of before, and June came in with white clover in full bloom, but there was not more than enough honey in it to keep up brood-rearing until about the 20th, when the nights got warm and honey came in with a rush, and also fearfully hot, dry weather, so that the clover was burnt brown as a walnut by July 3. I never saw it go so quick in my life. Since then there have been heavy rains, and white clover has revived and is blooming yet (Sept. 16), but not enough to do much good. The past wet weather has given the fall flowers a splendid start, and the bees are working with a vim, and I may get some dark honey yet—what a lot of *buts* a bee-keeper has to use here to cover "blasted hopes!"

Bee Paralysis.—The Florida man is on the right track to cure it. Several years ago a case of it occurred in one of my colonies, and, after trying salt and sulphur without any results, I killed the queen, and the next day gave a frame of brood with the adhering bees and capt queen-cells, and in a few weeks the disease was gone. This year one of my colonies got it bad, so bad that the swollen bees got in under the ends of the frames on the tin rabbets and died there. The queen was killed, and a frame of brood and bees with capt queen-cells given them, and in a few weeks the disease was gone. It seems to me that the disease is in the queen, and is inherited by some of the young, as I took notice that all the swollen and dying bees were young bees that had probably never been out of the hive, at least I could not find any frayed wings amongst them; and I will give a guess at the cause of the disease: It is a weak constitution, caused by in-breeding to keep the stock pure and get as yellow bees as possible; and that accounts for the disease being more prevalent now than in former years, when the black bees were in the majority, and there was more crossing than now.

Hives for Winter.—For the last three winters my bees have wintered on five or six Langstroth frames, standing on end and packt around with ground cork. They winter perfectly in that shape, consume very little food, and very few die; but there are several objections to that plan, one is the extra amount of work in changing the frames from one position to the other twice a year, and another, the most serious one, some of the best have to be changed to give more room before the weather is warm enough. So I have built 10 hives on an entirely new plan: The brood department is a cube inside of about the capacity of nine Langstroth frames, and is made of two parts horizontally (it is not the Heddon plan); the frames are placed in the body in such a manner that there are no outside frames (for a bunch of bees to starve and freeze on through inability to get into the cluster), that is, the cluster can expand or contract as the weather changes, without a bee having to go over, under, or around a frame ; and if there is anything in this hive, this is the main point.

The extracting surplus case is just the same as one of the halves of the brood department. The frames are interchangeable, and are 1¼ inches from the floor, but the bees can get on them without going to the sides or the back end. The body can be reverst bottom up without disturbing a bee, and is just the same either way. The frames are self-spacing, but not the Hoffman, for, like B. F. Lewis, on page 565, "I want no more Hoffman frames in mine." The body can be turned either side to the front, it comes just the same. One of the halves of the body, or a surplus extracting-case, can be used to put a swarm in as a contractor. But the proof of the pudding is in the eating of it. This time next year I can tell how good or how bad it is, and I will let you know, if we are both still alive.

Lancaster Co., Pa.

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Honey-Production on the Island of Cuba.

BY O. O. POPPLETON.

On first page of the Bee Journal for Oct. 21, Mr. Muth in reply to a question from "California," gives some figures in regard to Cuban honey, and the duty on the same, and suggests that I give some more light on the subject.

I judge from what I could learn in Cuba, and since, that, as honey-producing countries, Cuba and California are about even. Conditions of honey-flow are very different in the two countries, but it would be hard to judge which could produce the larger gross amount of honey during a series of years. Labor is cheap. When I was there wages for good, first-class farm-hands averaged about $8.00 per month, and board, or 40 cents a day. I paid a hand for help in the apiary the above wages, and he was a good hand, too. He did nearly all the work of uncapping and extracting our crop of 26 tons, and considerable other work also. During the height of the season he did all the work with knife and extractor, usually taking out, when working all day, from 1,500 to 2,000 pounds.

Freight charges were very low. This 52,000-pound crop costs us 15 cents per hundred weight net, from Havana to New York, with an addition of a small lighterage charge in Havana. It costs me 85 cents per hundred weight gross to ship my honey from here to New York, and I cannot get as good a hand as I had in Cuba, for less than about $25 per month, and board.

Cuba exacts an export duty of 6 cents per gallon, and our country an import duty of 20 cents, making a total of about 2¼ cents per pound.

The bulk of the Cuban honey crop is produced by native apiarists, who use sections of the hollow trunk of the royal palm. These are long, from four to six feet, laid down on the side, one end entirely open, the other closed with a board. The brood is usually in a compact shape, leaving most of the "hive" to be occupied with honey quite free from brood. Whenever the hive is full, the honey is removed, comb and all, masht, strained, and the wax rendered out. The implements used are tubs, cloth strainers, kettles, a long knife or machete, and an iron rod, one end bent into a hook. It will very readily be seen that from the small investments in skill, capital and labor, honey can be produced very cheaply in a country with such honey-resources as Cuba has ; and that, unless there is some drawback that we don't have, they can furnish honey in our seaboard markets much cheaper than we can afford to produce it. This drawback is the duty, or rather duties, amounting to about 2¼ cents per pound, and partly makes up for the extra prices we have to pay for freight and labor. As Mr. Muth says, "Take off the duty, and we would have to put up with Chinaman's fare, or quit the business."

LESS STORING AFTER EXTRACTING—WINTER PASSAGES.

On page 661, Mr. J. F. McIntyre is quoted as saying, "He always found that bees stored less for a day or two after extracting." I think Mr. McIntrye is right. More than this, I have found that bees do not store more honey when hives are full of nearly or quite empty combs than they do when combs are nearly full of honey, provided they are not actually crowded for room. The reverse of this has been, and I think still is, the almost or quite universally accepted idea.

On the same page is an item on the importance of winter-passages in combs, in out-door wintering. I am a strong believer in the necessity of such passages, and had a very cheap, easy method of making such passages so late in the fall that they would not be closed up. I will not give the method, as it cannot be easily used with 8 or 10 frame hives. With such hives, Hill's device, or something similar, will partly, but not altogether, answer the same purpose.

Dade Co., Fla.

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Comb Foundation—Is its Use Profitable?

BY "SAGE BRUSH."

I was very much interested in the article on the above subject, on page 579, by Mr. S. A. Deacon. Is the use of comb foundation profitable when used in large quantities ? I say no. I have been experimenting on that line, and in giving the results I wish the reader to keep in view the fact that I conducted the experiments in Southern California, in a locality not particularly noted for its honey-yield, but we have the sage and buckwheat on one side, and a large fruit district, in which there are plenty of gum and pepper trees, on the other side of our apiary. Our bees gather honey more or less all the year, thus making it possible to succeed better in such experiments than others who were in as good or better honey district, but without the gums, peppers, and fruit-trees to keep up some little flow of honey through the fall, winter and early spring.

Some years ago I was askt to look over some bees for a neighbor. I found they had been allowed to swarm themselves to death, thus letting the moth get a good start. I fixt up some of them, but a few were so full of moth-worms that the owner askt me to take them, returning the hives and frames to him later. When I got them home I found I could not get any comb foundation, so I took a frame of brood for each from the colonies, and putting it in a new hive brusht the little colonies out of the moth-eaten hives into them, giving each from one to two frames, having narrow starters of foundation. They at once commenced to build nice worker-comb. I added empty frames as needed until each had from five to six frames filled with comb and brood. I then took frames from one-half the hives to fill the other half, giving empty frames as before, until in a short time I had the lot ready for the extracting supers. I was so surprised at the result I concluded to try it further.

The following winter I bought out a small apiary. About the time they commenced to breed up I went through them, taking out all the drone-comb from the brood-chambers. Running short of worker-combs, I took what I needed from the most backward colonies, and filled those that were strong. That left me with a number of colonies of three frames each, fairly well filled with brood. I set these to the side of the hive, put in a board, and in a few days they needed more room. I then gave each an empty frame, and they at once commenced to build nice worker-comb, and filled it with brood as fast as built. I added frames as required until they had about six frames each of brood. I then took frames enough from one-half to fill the other half, until in a very short time I had them all ready for the supers, and was very much surprised to find they were the best honey-producers I had, and gave me a larger average than any in the yard.

When the swarming season came (we don't have many swarms, say from 15 to 20 from 100 colonies) I hived the new swarm on the old stand, and in four days I set the extracting super on the new swarm, put the parent colony in another part of the yard, where I had a row of them; then I took all the frames, except three, away from them, leaving those having the most brood and a queen-cell. About the time the young queens commenced laying, I gave each an empty frame. Of course they built nice worker-comb, and did it in such a short time I soon had the extracting supers on the lot, and got two good extractings from them the same season.

Then after the honey or extracting season was over, I took all the frames, except three, from a number of colonies, and started them in to build worker-comb, and kept it up until I had all the combs I needed. Then when I set the extracting supers back on those hives, I found them in the best condition of any colonies in the yard.

About this time I became so confident in the success of my experiments that I ventured to tell it to others, but was somewhat surprised to find they could not see it in the light I did. One said:

"No doubt you will get nice work-comb in that way, but see what it costs! For my part, I run my bees to make money, and could not afford to have my bees build combs in the way you suggest."

Now I knew this party claimed he had a better locality than mine for honey; I also knew his average yield was much less than mine, so he did not convince me that I was wrong. Now, along comes Mr. Deacon with his very interesting article. I feel so pleased to know that there is at least one who thinks as I do on this subject.

If you can find a place in the Bee Journal for this report, I may some day write about other experiments I am making on another line connected with our interesting pursuit.

San Bernardino Co., Calif.

Members' Reports of the Illinois Association.

[The first week in October Secretary Jas. A. Stone, of the Illinois State Bee-Keepers' Association, mailed these questions to the members, which have since been answered as shown below:—Editor.]

1. How many colonies have you?
2. What are the prospects for a honey crop?
3. How much gathered to date?
4. Is the honey gathered No. 1 or not?

M. M. Baldridge, Kane Co.—1, 30. 2. When? None at all. 3, Cannot state for the purpose wanted. 4, Very good indeed.

A. Y. Baldwin, DeKalb Co.—1, 70, spring count; now, 85. 2, Good. 3, Something over 7,000 lbs. 4, All No. 1, and fine at that.

C. Becker, Sangamon Co.—1, None. 2, No good. 3, 3,500 lbs. 4, Yes.

S. N. Black, Adams Co.—1, 8 in spring; 29 in fall. 2. Honey crop over. 3, 400 lbs. of comb honey. 4, ¼ white clover; ¾ fall honey.

W. B. Blume, Cook Co.—1, 44, spring count. 2, Good. 3, 2,970 lbs. 4, Most No. 1.

W. S. Chancy, Jefferson Co.—1, 50 after uniting. 2, Bad for another year. 3, 1,000 lbs. of comb honey and 700 of extracted. 4, Yes.

Stoughton Cooley, Cook Co.—1, 11. 3, 400 lbs. 4. No. 1.

S. H. Herrick, Winnebago Co.—1, 28. 3, About 1,100 lbs. 4, All No. 1 except unfinisht sections.

L. Kreutzinger, Cook Co.—1, 140 now; 100, spring count. 2, Has been fair. 3, About 5,000 lbs. of comb honey. 4, Three-fifths No. 1; balance dark or No. 2.

W. C. Lyman, DuPage Co.—1, 80. 2, All gathered. 3, About 2,000 lbs. 4, Nearly all No. 1.

C. E. Mead, Cook Co—1, 4 colonies and 7 nuclei. 2, 250 lbs. of extracted; 55 of comb. None since Aug. 15. Northeast winds. 4, All No. 1 white, from clover, thistle and white sweet clover.

G. R. McCartney, Winnebago Co.—1, 16. 2, No more honey this year. 3, 300 lbs. 4, Yes, No. 1.

Dr. C. C. Miller, McHenry Co.—1, 295. 3, Not far from 17,000 lbs. 4, The very finest.

Jas. Poindexter, McLean Co.—1, About 160. 2, Ended. 3, About 4,500 lbs. of comb honey, and 500 of extracted. 4, No. 1.

A. P. Raught, Lake Co.—1, 16. 3, 370 lbs. 4, About half No. 1.

E. F. Schaper, Porter Co., Ind.—1, 90 to 100. 2, None after this, this year. 3, 2,000 lbs. and over. 4, Good quality.

C. Schrier, Will Co.—1, 16, spring count; 22 now. 2, Season is over. 3, 940 lbs. 4, Yes.

L. Sylvester, Kane Co.—1, 35 now; 17, spring count. 3, 1,300 lbs. of comb honey, and 450 of extracted. 4, All white and sweet clover.

Geo. Thompson, Kane Co.—1, 17. 3, Comb, 400 lbs.; extracted, 800 lbs. 4, No. 1.

J. C. Wheeler, Kendall Co.—1, 458. 2, Last 6 weeks of drouth has killed clover. 3, 9 tons of extracted; 3 tons of comb honey. 4, Good.

G. W. Williams, Brown Co.—1, I have 20; have sold off some. 2, It has been very good. 3, I think between 1,500 1,600. 4, Some No. 1.

Honey as Food is the name of a 24-page pamphlet, 3¼x6¼ inches, which we are now printing for general distribution among those who should be users of honey. It is just the thing for bee-keepers to hand to every one of their customers, and also to those whom they would like to have as customers. It is very handy in size—just right to go into an ordinary business envelope. It contains 12 illustrations, five of which are somewhat comic, and help to make it attractive. There is a blank space for your name and address. About ⅜ of the pamphlet was written by Dr. Miller, and then we added thereto many new and valuable honey recipes—for cooking and for medicinal purposes. In all, it makes a neat little pamphlet. Send name and address and we will mail you a sample of "Honey as Food."

Prices for quantities, postpaid—25 for 30 cents; 50 for 50 cents; 100 for 85 cents: 200 for $1.40. By express, not prepaid, 500 for $3.00; 1,000, $5.00.

Now let the orders come in, and we will do our best to fill them promptly. Remember, a sample copy is mailed free.

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

The Names and Addresses of all your bee-friends, who are not now taking the Bee Journal, are wanted at this office. Send them in, please, when sample copies will be mailed to them. Then you can secure their subscriptions, and earn some of the premiums we are offering. The next few months will be just the time to easily get new subscribers. Try it earnestly, at least.

Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offers on page 718.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Cutting Down the Langstroth Frame.

1. Would it be wise to cut the Langstroth frame down to a smaller size, and leave it still self-spacing?

2. Are there not too many sizes of frames now?

3. The Langstroth frame is so large that there are few good frames with comb full down to the bottom-bar. The smaller the frame the nicer they are. Los Angeles.

Answers.—1 and 3. Probably you wouldn't be any better satisfied to cut down the frame. If you made it only half its present size, you would very likely find that the bees wouldn't build the combs down to the bottom-bar without having foundation come clear down, and if foundation comes clear to the bottom-bar of course the present size will have the combs built down.

2. On some accounts it would be a very nice thing to have only one size of frame, but this is a pretty big country, and it's somewhat doubtful if all will agree to use the same frame.

Transferring Before or After Swarming.

1. I have 3 or 4 colonies of bees in boxes which I wish to transfer next spring to movable-frame hives. Will it be proper to get a swarm from each and transfer afterwards, or transfer before they swarm?

2. If it is proper to let them swarm first, how long afterwards should I wait before transferring, the weather being suitable? Missouri.

Answers.—1. I think I'd let them swarm and hive the swarm in a movable-frame hive.

2. Then in three weeks I'd transfer the contents of the old hive to another movable-frame hive, because at the end of three weeks all the old brood will be hatcht out and will not be in the way.

Keep watch of this department from week to week, and very likely you'll get hold of some hints that will be of use to you in the matter.

Fall and Spring Price of Bees.

What is customary amongst bee-keepers in selling a colony of bees in the fall, in regard to food supply of the same? I notice that dealers who charge $10 a colony in spring offer the same for $6 in the fall. Now, if they are situated where honey commands a good price, and supply a colony with 20 pounds or more of honey, at the fall price, it seems as if they must be out of pocket. Please enlighten. Inquirer.

Answer.—The amount of honey in the hive really cuts no figure. If a dealer sells a colony in the fall, it has 20 pounds or more of honey, and if he sells the same colony in the spring, altho the honey may not be visible in the hive he is out of pocket the same amount of honey, for the bees have consumed it. Look at the matter in this shape: Suppose you buy a colony of bees in the fall, paying $6.00 for it. The seller lets it stand, and you may take it when you like. If you let it stand till spring and then take it away, it's all the same to him. He has the $6.00, and you have the colony. But you may ask, "Why should he have more for his colonies in the spring?" There are two reasons. One is that in most cases there is some labor and trouble connected with preparing for winter and wintering. For that there should be some compensation, but not a very great deal The principal difference in price comes from the loss in wintering. Suppose a man wants to sell you 10 colonies in the fall, and is willing to sell at $6.00 each, he will sell the whole lot for $60. If you wait till spring, and he loses 4 colonies in wintering, he will sell you the remaining 6 colonies at $10 each, and get the same amount as if you had bought in the fall at the fall price. Clearly that is the right thing (not taking into account for the present any compensation for the trouble of wintering) providing 4 out of 10 is the regular loss that he always suffers in wintering. The spring price should be enough higher than the fall price to pay for the trouble of wintering, and also for the loss in wintering, but as a matter of fact a successful winterer would feel rather ashamed to lose anything like 4 out of 10 of his colonies. But is it not an exceptional case when a difference of $4.00 is made between fall and spring prices? or when as much as $10 a colony is askt? Looking through the pages of the back numbers of the American Bee Journal, I find Doolittle's dismal old man standing up in the cold winds of March offering bees at precisely the same price he askt in the following September.

A List of Ten Questions.

1. I have an extra queen that I wish to keep through the winter. What must I do with her to keep her?

2. I have a small colony of bees with a good queen that I can't use any other way. Will they go through the winter on three frames if fed well? Is sugar syrup all I need to give them, or will I have to give them something for pollen?

3. Where did the Carniolan bee come from?

4. Will an 8-frame hive well filled carry a colony through the winter?

5. Can I get a honey extractor that will take a frame 12x12 inches, inside measure?

6. If I run for extracted honey, will a large hive do as well as a two-story hive? If so, how large a hive, and how far apart, for the frames on the outside of the brood-chamber?

7. How large a bee-space ought there to be at the end and bottom of the frames?

8. A certain breeder advertised "Texas queens." What kind of bees are they?

9. What time of the year do bees store honey-dew? Or do they get any at all in this State?

10. When bees have honey and sugar syrup in the brood-chamber, which do they use first? Virginia.

Answers.—1. Of course you can't keep her without worker-bees with her. You can keep her in a nucleus of three or four frames, but a two-frame nucleus may do if it is in a hive with a stronger colony. Suppose you use ten-frame hives. Take a hive that has a colony that is on seven frames, or that can easily be crowded on seven frames, and have these seven frames on one side of the hive, and have on the other side your two-frame nucleus, with a division-board between them that fits so close that not a bee can get from one side to the other. The heat of the stronger colony will help keep the nucleus warm. The same plan will do with an eight-frame hive, only your principal colony must be crowded on five frames, unless you can have six and still have room for the division-board and the two frames of the nucleus. But it's a pretty strong colony that cannot be crowded on five combs at this time of year.

2. They may go through all right alone, but will do better to be in a hive with another colony, as mentioned in answer No. 1. Sugar is all they need for wintering, but they can rear no brood in spring without at least a little pollen.

3. From Carniola, a province in Austria not very far from northern Italy.

4. They have done so for me and for many others. But you must look out closer than with ten-frame hives to see that they have plenty of stores.

5. Yes, you can get an extractor for any size of frame you are likely to have.

6. The majority of those who run for extracted honey in this country think it is better to have more than one story.

7. At the end of frames ¼ inch is enough, providing your frames hang perfectly true, but many have the space ⅜ of an inch. Between the bottom-bar and the floor the space may be ⅜ or half an inch, or more.

8. I suppose they are queens reared in Texas, just as queens you rear are Virginia queens.

9. There is no particular time, but not, I think, till after pretty hot weather: No doubt honey dew is to be found in Virginia at times, Some years produce more than others.

10. Probably they use according to the place and the sealing rather than according to the kind. First that which is in the brood-nest, and if any is unsealed then that comes next. If there is none unsealed, and if it is warm enough for them to move freely to all parts of the hive, they will next bring into the cluster that which is in the outside combs.

Stores for Winter—Keeping Down Increase.

1. I have 5 colonies of bees in box-hives, and find that they cannot have more than about 15 pounds of honey each to winter on, and at this date too late to do any feeding. I remember reading so often that bees are wintered with less stores in a cellar. Do you think it would be a good thing to put those into the cellar right under the house where I live? The cellar is kept clean the year around, altho in early spring there is water springing therein, but it runs out through a drain. The cellar is 24x26 feet, and 10 feet high, with three air-grates of glass, 8x10 inches, to open. Nothing will freeze in it in winter at any degree. How would it do to fix them away up from the cellar bottom, and have them curtained off with one of those air-grates in the curtained part, and whenever a warm day comes, when bees fly briskly, to take them out, each on its own stand, to have a flight just like the rest which I have nicely put up for winter on the summer stands? The way they are put up, people say they are kept too warm for winter, and ask if they don't consume too much honey.

2. Having 50 colonies of bees with not one sheet of brood foundation, and no empty comb more than what the other 50 are on, and I don't care to have one colony more than 50, how would you manage them next year at swarming-time? I thought I would ask you this in time, and then follow your good plan.
PENN.

ANSWERS.—1. Bees use less stores if properly cellared than out-doors, especially if they have frequent flights out-doors. They use up more stores through the winter in the South than they do with you in the good old Keystone State. It will probably be the wise thing for you to put those five colonies into the cellar, altho it may be better to winter out-doors strong colonies with plenty of stores.

The great thing is to keep the bees perfectly quiet in the cellar. From your description your cellar seems to be first-class. The bees must be kept perfectly dark. The air should be pure. If too warm or too cold they will be uneasy. The only way to tell how warm to keep the cellar is to watch the bees and see at what temperature they're most quiet. When you find what that temperature is, try to keep the cellar at that. You'll find it somewhere about 40° or 50°. Don't be troubled about the water. Bees have wintered finely where water ran through the cellar constantly. It will be all right to have them raised from the cellar bottom, but it will also be all right near the bottom.

Don't take them out for a flight on a warm day. It may look as if that was the right thing to do, but experience shows it isn't. They'll use more stores, and don't seem as quiet after the fly. Don't take them out till you take them out for good. And don't take them out at all till you think it's fairly settled weather. About the time soft maple blooms, but sometimes soft maple blooms before it's warm enough to take out the bees. My bees stand it all right to stay five months in the cellar. In your climate they'll not need to be kept in so long.

I don't think there's any danger of your bees being too warm on the summer stands, but, as I said before, they'll eat more if they fly out very often. Still, I'd like to live in a place where bees would fly out once or twice a month.

2. I don't know. Maybe I'd sell some of them and buy foundation for the rest. If I understand you, you want to limit the swarming to one from each colony. You can manage that part of it pretty well. When a swarm issues, hive it on the old stand, setting the old hive close beside it. A week later take the old hive away and set it in a new place. All the better if you do this at a time of day when the bees are in the height of a play spell. This will so reduce the number of bees in the old hive that they will generally give up all thought of swarming. The swarm will be strengthened by the returning bees, and will be the one for surplus. Of course, without foundation you'll have too much drone-comb, but you can help matters to some extent by cutting out some of the drone-comb and putting in its place patches of worker foundation. But this you can't do till the following spring when the outside combs are empty, altho of course you could cut out drone-comb, brood and all, if no honey was in the way.

You're wise to ask questions in advance instead of waiting till it's time to act, and then expecting an answer in print the next day.

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

BEEDOM BOILED DOWN.

Marketing Honey.—At a German bee-convention, H. Guehler, of Berlin, himself perhaps the largest dealer and middleman in Germany, advised that bee-keepers should dispense as far as possible with the services of middlemen, dealing directly with the consumer. Sell to customers at home, at the market of the next town, and in groceries. For retail, small glasses are preferable, holding 1/8, 1/2, 2/8 and 1 pound each, with elegant labels. Instructive articles in the weekly papers, and lectures upon the bee and its products will help.

Box-Hives for the Common People.—"Say what you will," says Lebrecht Wolff in Gravenhorst's Bienenzeitung, "the movable-comb hive will emphatically never be the right thing for the average bee-keeper. It demands too much knowledge and skill, too much attention." In his view it is all right for the masters, but the masters are few. Herr Wolff is by no means alone in this view, and many successful bee-keepers in Germany uses hives without movable frames. In this country, keeping bees in box-hives is hardly considered bee-keeping at all, and yet the inventor of movable combs, Father Langstroth, held that for the average farmer box-hives were best. Certainly if combs are never to be moved, and in many cases they never are, then they are better not to be movable.

Bee-Poison.—Joseph Langer has been investigating the poison of the honey-bee, sacrificing therefor the lives of 25,000 bees. The poison is clear as water, with a distinctly acid reaction, a bitter taste and an aromatic smell. Soluble in water. The acid reaction is due to the presence of formic acid, which, however, is not, as heretofore supposed, the poison proper, neither does it give the aromatic odor, which is very volatile. The poison proper is an organic base whose exact composition has not yet been ascertained. It is free from microbes, its presence preventing their growth. It withstands both heat and cold. A bee-sting applied to the eye of a dog after having been kept six weeks at the temperature of boiling water, produced precisely the same phenomena as the fresh poison.—Centralblatt.

Packing Bees for Spring.—Ersler, in Centralblatt, says that while advance has been made in the matter of packing bees for winter, we are much behind what we should be as to spring packing. An early examination, or spring feeding, makes it necessary to remove the packing, and it is then left removed at the very time when it is especially important that all the heat possible should be retained to keep up the heat for breeding. He emphasizes packing overhead as the most important. And that is in accord with the practice of C. F. Muth, who says no other packing is necessary, if only the bees are well protected overhead. No doubt Mr. Muth is correct for the latitude of Cincinnati, but further north those who winter bees out-doors will find benefit from protection of sides as well as top.

Bee-Keeping—Farmers' Bulletin No. 59.—This pamphlet of 32 pages, written by Frank Benton, assistant entomologist, and issued by the Department of Agriculture, does not pretend to be a full text-book upon bee-keeping, but is well adapted to fill its place as a farmers' bulletin. It gives elementary instruction such as can be of no benefit to one familiar with the ordinary text-books, but may be very serviceable to farmers and others who may have one or more colonies of bees without any knowledge of their care.

Particularly commendable are the temperate statements as to the profits of bee-keeping. Instead of painting the business with high colors, awakening expectations that must only end in disappointment, the reader is told that with good wintering and an average season, a moderate estimate for a fairly good locality would be 30 to 35 pounds of extracted honey or 20 pounds of comb honey per colony. The loose-fitting, suspended comb frame is recommended, no other frame being mentioned except the Quinby, altho it does not readily appear why a tyro in the business should not have the advantage of a frame that will promptly space itself at the right distance, instead of the loose-fitting frame which troubles the expert to space correctly. One is a little surprised to read that white clover honey is of a rich yellow color. But these are minor defects. As in other publications of the department, bold, clear type on good paper makes the page pleasant to the eye.

The American Bee Journal
OLDEST BEE-PAPER IN AMERICA

GEORGE W. YORK, - Editor.

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United States Bee-Keepers' Union.

Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

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Editorial Comments.

Honey-Dealing Frauds seem to be less abundant this fall than for several years past. It paid well to come down on them as hard as we did when they were flourishing, and thus drive them out of their swindling business. It will never be known just how much was thus saved to bee-keepers, by giving a warning note, and also by uprooting the fraudulent honey-commission fraternity.

So far as we are aware just now, there is not a thoroughly bad honey-dealing firm in Chicago. Of course, there are plenty that are bad in spots, or schemy in a small way, but as for there being any that compare with the notorious Horrie-Wheadon gang, we can hardly believe it.

But let us remind our readers that if they receive any letters from city firms soliciting honey shipments, and they bear the least evidence of being unworthy of patronage, just send such letters to us and we will investigate and report. We are just aching to go for some honey-dealing fraud again.

◆

Foul Brood in Canada.—We have received the following letter, dated Nov. 3, from Mr. Wm. McEvoy, the well-known Foul Brood Inspector, of Ontario, Canada:

FRIEND YORK:—At this season of the year, when the bee-keepers begin fixing up their colonies for winter, many of them find dead brood in some of the hives. These late discoveries cause a very uneasy feeling, and particularly so when found in fine, large apiaries. Things are left at a stand-still then, until McEvoy comes, who has been sent for. Oh, my, how anxious these people are, and how strong they plead for me to come at once (when they write), no person could tell unless in my place. If it is not foul brood, they want to fix up at once; but if it is, what is best to be done is the great consideration with them. I get to all places as soon as possible.

Things have greatly changed since I first began inspecting the apiaries of Ontario. Everywhere I go now I am well treated, and all the bee-keepers of the Province are good friends of mine.

Mrs. McEvoy and I expected to have been at the Buffalo convention, but, oh, how disappointed we were when the time came. I had to go to a locality where the disease was spreading very fast through foul-broody colonies that had been shipt into a neighborhood where many colonies were kept, and where the disease had never before been. Just before that, I received a letter from a good bee-keeper, saying that he had $1,000 worth of bees, that one of his neighbors had a few colonies badly diseased with foul brood, and that the owner of these diseased colonies was setting out the cappings for the bees to clean up, which was going to ruin his fine apiary if I did not come at once, as the law did not give him the power to go on the man's ground and stop it. I had to go at once to that locality, and make things safe and do justice to all.

Yours truly, WM. McEVOY.

If every State and Province had as energetic an inspector of foul brood as Mr. McEvoy, it would not be long until the bee-keepers of our land would be pretty well rid of the disease. Mr. McEvoy is a great "bee-doctor," and Ontario may well be proud of his untiring efforts.

◆

Using Zinc Separators.—On page 588 of the Bee Journal for Sept. 16, 1897, the "Question-Box" answers appears without any questions. The topic was, "Using Zinc Separators," and we do not wonder that Mr. Hasty had to laugh when he saw the string of answers to no questions at all. He referred to it thus, in the October Review:

What little things a laugh sometimes depends on. In the last American Bee Journal I laugh to see a string of the senators saying, "I don't know," "I don't know," "I don't know," just as the dog barks of a pleasant evening, at nothing at all. They think they are responding to a question; but the question isn't there. Got left out somehow.

Of course, the omission happened when making up that particular page of the Bee Journal in the printing-office. For the benefit of Mr. Hasty, and others, we here give the questions, and trust such a queer performance may not occur again:

QUERY 60.—1. Is there any harm in using zinc separators, especially when there is a good deal of the white oxide about them?

2. Is this poisonous to the bees?—D.

Now, turn back and read the replies again.

◆

Sections Without Bee-Spaces.—Editor Root appears quite enthusiastic over the matter of using sections with no openings cut in either of the four sides. Cleated separators make openings unnecessary. Such separators were used eight or ten years ago by Oliver Foster, perhaps later by the late B. Taylor, and for years by Miles Morton. The cleated separator looks like a panel of fence. Instead of being all in one piece, three or more narrow pieces are used, of course of the same length as if the separator were all in one piece. These narrow strips cost less, and have the advantage that a space occurs between each two pieces, allowing communication for the bees. Cleats somewhere in the neighborhood of half an inch wide, and as long or longer than the width of the separator, are glued on the separator on each side, so as to come just at the places where the sides of the sections strike. It will readily be seen that if the cleat is thick enough there will be no need to cut away any part of the top or bottom bar of the section to make a passage for the bees. With cleats ⅛ inch thick the section will lack ⅛ inch of being filled even full. That is, a straight edge laid across the face of the section would have a space of ⅛ inch between the comb and the straight edge or ruler. Of course, a bee can't get through a ⅛-inch space, but the separator is made enough narrower to make a larger space. In case the separators are used in section-holders, making the separators narrower does not hinder their being held at the right place, for the cleats are made long enough to rest where wanted—at least part of them. For use with these separators, the unfolded section is one straight piece of uniform width its entire length, and when folded there is no "naughty corner." One sweep of the knife scrapes all four edges on one side, and the narrower sections allow more to go in a case, saving one-fourth the cost of shipping-cases. The section with the comb coming within ⅛ inch of the surface looks plumper and fuller than the ordinary section used with the ordinary separator, in which the comb comes within ¼ inch of the surface. The narrower section will cost less than the old width with scoring out at top and bottom. No change need be made in section-holders or T supers to make the new section and separator work all right.

The Bee-Master is an English monthly that has now reacht its 4th number. Its chief end seems to be to show what a bad lot are British bee-keepers, especially T. W. Cowan (a free use being made of such words as "liar" and "blackguard"), and to boom the Punic bees. Notwithstanding the unique statement plainly made, "There is no Editor of the Bee-Master," it is edited with such vigor that one cannot help wishing it might be directed in a more useful channel. In one respect there is a refreshing originality and frankness that contrasts sharply with what has been the case with bee-periodicals on this side the water that have lived out their short spans and then succumbed. With them the story has always been that they were having unbounded encouragement, subscriptions were pouring in, and all that, when at that very time they were in *articulo mortis*—with not subscriptions enough to pay for the blank paper used. With open candor, the Bee-Master says it is a long way off from paying expenses, sample copies sent out still only bring in about 30 subscribers per 1,000, and that it is a question whether it can be kept up until subscriptions pay expenses. If it is ever to become self-supporting, there will probably be an elimination of formic acid.

The Langstroth Monument Fund has languisht for some time, but it seems the Utah Bee-Keepers' Association, through its progressive president, Mr. E. S. Lovesy, took up the matter and secured the following subscriptions, amounting to $5.00, with promises of more later on:

E. S. Lovesy, $1.50; J. B. Fagg, $1.00; Frederick Schach, $1.00; John Bouck, $1.00; T. B. Clark, 50 cents.

We have received 50 cents from E. E. Wheeler, of Connecticut, for the same purpose.

Up to this time we have turned over $5.00 toward the Langstroth Monument Fund, and will be glad to acknowledge the subscriptions in the Bee Journal as fast as they are received. How many can we have by Jan. 1, 1898?

The Weekly Budget.

MR. A. G. WILSON, of Vernon Co., Wis., wrote us Oct. 31:

"One or two days' more work will fix my 365 colonies ready for their five months' solitary confinement."

MR. E. S. LOVESY, President of the Utah Bee-Keepers' Association, writing Oct. 26, said:

"We have had a splendid honey-flow here this fall, and the bee-keepers that had their bees in good condition have reapt a bountiful harvest, and they are correspondingly happy. The 'Old Reliable' still comes to hand regularly. We congratulate you on the progressive interest of the American Bee Journal in behalf of bee-keepers and the bee-industry."

MR. W. P. KEYES, manager of The One-Piece Section Co., of Wisconsin, in renewing his subscription recently, said:

"We cannot do business without the American Bee Journal."

MR. JOHN H. MARTIN, of California, is reported, in Gleanings for Nov. 1, as being very sick. All will regret to learn this, and trust that the Rambler may soon be restored to health, and be able to resume his rambling as of yore.

MR. GEORGE WILBRECHT, of Fillmore Co., Minn., wrote us Oct. 22:

"I would not be without the Bee Journal if it cost $2.00 a year in place of $1.00, so I send the dollar for another year."

MR. J. N. LADENBURGER, of Hamilton Co., Ohio, gives his essimate of the Bee Journal as follows, when paying for 1898:

"I could not do without the American Bee Journal. It comes regularly every Thursday, at 10 o'clock."

MR. O. O. POPPLETON, of Dade Co., Fla., writing us Oct. 25, said:

"The past month has been the rainiest one I have ever known in Florida, and that is saying much. Bees are suffering severely, but I think I can carry mine through in fair condition until Dec. 1, when the honey-flow will begin."

"GRANDPA COOK" is what Prof. A. J. Cook has been for nearly a month now. Our congratulations are hereby extended. Writing us Nov. 1, the Professor said he had started for Chicago three days before, and got as far as Arizona, when he was called back. Too bad, for had he been permitted to continue his journey we certainly would have had him with us here at the Northwestern convention this week. And what a treat and help that would be!

MR. JEWELL TAYLOR, son of the late B. Taylor, of Fillmore Co., Minn., wrote Nov. 1:

"The honey crop was very light here the past season, but I am not ready to part with the 'Old Reliable.'"

We don't anticipate that very many are ready to part with the "Old Reliable" just yet. It has tried to stand by the interests of bee-keeping through failures and successes, and expects to be of more value to its readers as time goes on.

MR. S. J. BALDWIN, a bee-keeper and supply dealer of England, is again in this country. October 26 he wrote us as follows, from his New Jersey home:

"Ill-health and the prospects of benefits to be derived from another visit to this great and interesting country has induced me to come here again, and I am happy to say that my most sanguine expectations have been realized, as I am greatly improved in health already. I left Liverpool Sept. 8, and reacht Philadelphia on the 18th. I expect to return to England just before or after Christmas."

MR. I. J. STRINGHAM, of New York, wrote us as follows Oct. 25:

"One of my customers in this city took five 28 one-pound section supers of honey (140 pounds) from his best colony, and averaged somewhere around 80 pounds to the colony from 14 colonies. Can Chicago beat that much? We know you people can always tell good stories about your city, so I suppose you can."

How about that, Chicago bee-keepers? Let's have a report from "Greater Chicago," now that "Greater New York" has been heard from.

DR. HOUSE'S YELLOWZONES.—We wish to direct the attention of our readers to the advertisement of "Yellowzones," which appears on another page of this issue. Judging from the testimonials and the guarantee, we should say that the remedy is everything that is claimed for it. In fact, we have used Yellowzones ourselves, and simple justice compels up to say that we found them quite effective. We are personally acquainted with their manufacturer, and are assured by him that it contains no habit-provoking or dangerous drugs, but that it is a simple curative, of great power and undoubted value. Better try Yellowzones, and see for yourself.

BEE-BOOKS

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George W. York & Co.,

Chicago, Ills.

Bees and Honey, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages, and 245 illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold-lettered. Price, $1.00.

Langstroth on the Honey-Bee, revised by Dadant—This classic in bee-culture, has been entirely re-written, and is fully illustrated. It treats of everything relating to bees and bee-keeping. No apiarian library is complete without this standard work by Rev. L. L. Langstroth—the Father of American Bee-Culture. It has 520 pages; bound in cloth.

Price, postpaid, $1.25.

Bee-Keepers' Guide, or Manual of the Apiary, by Prof A. J Cook, of the Michigan Agricultural College.—This book is not only instructive and helpful as a guide in bee-keeping, but is interesting and thoroughly practical and scientific. It contains a full delineation of the anatomy and physiology of bees. 460 pages; bound in cloth and fully illustrated.

Price, postpaid, $1.25.

Scientific Queen-Rearing, as Practically Applied, by G. M. Doolittle.—A method by which the very best of Queen-Bees are reared in perfect accord with Nature's way. 176 pages, bound in cloth, and illustrated. Price, $1.00.

A B C of Bee-Culture, by A. I. Root.—A cyclopædia of 400 pages, describing everything pertaining to the care of the honey-bees. It contains 300 engravings. It was written especially for beginners Bound in cloth. Price, $1.25.

Advanced Bee-Culture, Its Methods and Management, by W Z. Hutchinson.—The author of this work is too well known to need further description of his book. He is a practical and entertaining writer. You should read his book. 90 pages, bound in paper, and illustrated. Price, 50 cts.

Rational Bee-Keeping, by Dr. John Dzierzon—This is a translation of his latest German book on bee-culture. It has 350 pages: bound in paper covers, $1.00

Bienen-Kultur, by Thomas G. Newman.—This is a German translation of the principal portion of the book called BEES OF HONEY. 10, page pamphlet. Price, 40 cents.

Convention Hand-Book, for Bee-Keepers, Thomas G. Newman.—It contains the parliamentary law and rules of order for Bee-Conventions—also Constitution and By-Laws, with subjects for discussion, etc. Cloth, gold-lettered. Price, 25 cts.

Thirty Years Among the Bees, by Henry Alley.—Gives the results of over a quarter-century's experience in rearing queen-bees. Very latest work of the kind. Nearly 100 pages. Price, 50c.

Practical Hints to Bee-Kee-Keepers—by CHAS. F. MUTH. Also contains a Foul Brood Cure and How to Winter Bees. 40 p.; 10 cts.

Why Eat Honey?—This Leaflet is intended for FREE distribution, to create a Local Market. 100 copies, by mail, 30 cts.: 500 for $1.25; 1000, $2.00.

How to Keep Honey and preserve its richness and flavor. Price same as Why Eat Honey.

Alsike Clover Leaflet.—Full directions for growing. 50 for 25 cts.; 100 for 40 cts.; 200, 70c.

Apiary Register, by Thos. G. Newman.—Devotes two pages to a colony. Leather binding. Price, for 50 colonies, $1.00; for 100 colonies, $1.25.

Preparation of Honey for the Market, including the production and care of comb and extracted honey. A chapter from BEES AND HONEY. Price, 10 cents

Bee-Pasturage a Necessity.—This book suggests what and how to plai It is a chapter from BEES AND HONEY. Price, 10 cents.

The Hive I Use, by G. M. Doolittle. It details his management of bees, and methods of producing comb honey. Price, 5 cents.

Dr. Howard's Book on Foul Brood.—Gives the McEvoy Treatment and reviews the experiments of others. Price, 25 cts.

Silo and Silage, by Prof. A J. Cook.—It gives the method in operation at the Michigan Agricultural College. Price, 25 cts.

Winter Problem in Bee-Keeping, by G. R. Pierce. Result of 25 years' experience. 30 cts.

Handling Bees, by Chas. Dadant & Son.—A Chapter from Langstroth Revised. Price, 8 cts.

History of Bee-Associations, and Brief Report of the first 20 conventions. Price, 10 cts

Foul Brood Treatment, by Prof. F. R. Cheshire.—Its Cause and Prevention. Price, 10 cts.

Foul Brood, by A. R. Kohnke.—Origin. Development and Cure. Price 10 cts.

Bee-Keeping for Profit, by Dr. G. L. Tinker.—Revised and enlarged. It details the author's "new system, or how to get the largest yields of comb or extracted honey." 80 p.; illustrated. 25c.

Commercial Calculator, by C. Ropp.—A ready Calculator, Business Arithmetic and Account-Book combined in one. Every farmer and business man should have it. No. 1, bound in water proof leatherette, calf finish. Price, 40 cts. No. 2 in fine artificial leather, with pocket, silicate slate, and account-book. Price, 60 cts.

Green's Four Books, by Chas. A. Green.—Devoted to, 1st, How We Made the Old Farm Pay; 2nd, Peach Culture; 3rd, How to Propagate Fruit-Plants, Vines and Trees; 4th, General Fruit Instructor. Nearly 120 pages. Fully illustrated. 25 cts.

Garden and Orchard, by Chas. A. Green—Gives full instructions in Thinning and Marketing Fruits; Pruning, Planting and Cultivating; Spraying, Evaporation, Cold Storage, Etc. 94 pages, illustrated. Price, 25 cts.

Kendall's Horse-Book.—35 pictures, showing positions of sick horses, and treats on all their diseases. English or German. Price, 25 cts.

Lumber and Log-Book.—Gives measurements of lumber, logs planks; wages, etc. 25c.

Maple Sugar and the Sugar Bush, by Prof. A. J. Cook.—Full instructions. Price, 35 cts.

Grain Tables, for casting up the price of grain, produce, hay, etc. Price, 25 cts.

Capons and Caponizing, by Dr. Sawyer, Fanny Field, and others.—Illustrated. All about caponizing fowls, and thus how to make the most money in poultry-raising. 64 pages. Price, 30 cts.

Our Poultry Doctor, or Health in the Poultry Yard and How to Cure Sick Fowls, by Fanny Field.—Everything about Poultry Diseases and their Cure. 64 pages. Price, 30 cts.

Poultry for Market and Poultry for Profit, by Fanny Field.—Tells everything about the Poultry Business. 64 pages. Price, 25 cts.

Turkeys for Market and Turkeys for Profit, by Fanny Field.—All about Turkey-Raising. 64 pages. Price, 25 cts.

Rural Life.—Bees. Poultry. Fruits, Vegetables, and Household Matters. 100 pages. 25 cts.

Potato Culture, by T. B. Terry.—It tells how to grow them profitably. Price, 40 cts.

Hand-Book of Health, by Dr. Foote.—Hints about eating, drinking, etc. Price, 25 cts.

Bee-Keepers' Directory, by H. Alley.—Latest methods in Queen-Rearing, etc. Price, 50c.

Book Clubbing Offers.

(Read Carefully.)

The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only ONE book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted, see postpaid prices given with the description of the books on this page Following is the clubbing-list:

1.	Langstroth on the Honey-Bee	$2.00
2.	A B C of Bee-Culture	2.00
3.	Bee-Keeper's Guide	1.75
4.	Bees and Honey [Cloth bound]	1.65
5.	Doolittle's Scientific Queen-Rearing	1.75
6.	Dr. Howard's Foul Brood Book	1.10
7.	Advanced Bee-Culture	1.30
9.	Bienen-Kultur [German]	1.20
11.	Rational Bee-Keeping [Paper bound]	1.75
12.	Thirty Years Among the Bees	1.30
13.	Bee-Keeping for Profit	1.15
14.	Convention Hand Book	1.15
15.	Poultry for Market and Profit	1.10
16.	Turkeys for Market and Profit	1.10
17.	Capons and Caponizing	1.10
18.	Our Poultry Doctor	1.10
19.	Green's Four Books	1.15
21.	Garden and Orchard	1.15
23.	Rural Life	1.10
25.	Commercial Calculator, No. 1	1.25
26.	Commercial Calculator, No. 2	1.40
27.	Kendall's Horse-Book	1.10
30.	Potato Culture	1.20
32.	Hand-Book of Health	1.10
34.	Maple Sugar and the Sugar Bush	1.20
35.	Silo and Silage	1.10
36.	Winter Problem in Bee-Keeping	1.30
37.	Apiary Register (for 50 colonies)	1.75
38.	Apiary Register (for 100 colonies)	2.00
39.	Bee-Keepers' Directory	1.30

Muth's HONEY-EXTRACTOR Square Glass Jars:

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Send for our new catalog.
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Please mention Bee Journal when writing.

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We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
Alsike Clover	.70	$1.25	$3.00	$5.75
Sweet Clover (white)	.60	1.00	2.25	4 00
White Clover	.90	1.60	3.75	7.00
Alfalfa Clover	.60	1.00	2.25	4.00
Crimson Clover	.55	.90	2.00	3.50

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Add 25 cents to your order, for cartage, wanted by freight.

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Catalog of Apiarian Supplies and Bees, Free.
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APIARY—Glen Cove, L. I.
Please mention Bee Journal when writing.

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All kinds direct to consumers from the factory at wholesale prices. We save you 40% on HARNESS, BUGGIES, ROAD CARTS, SURREYS AND PHAETONS.

$5.50.

FIRST CLASS GOODS.
LOW PRICES.

Barkley Harness........ $ 4.50 up.
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Barkley Road Carts... 10.00 up.
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Write for Special Bargain Circular of staple Harness and Vehicles.

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Read our book of voluntary testimonials from our customers, and see what they think of Barkley goods and business methods. It will pay you to do so. We are selling direct to consumers, saving you the traveling man's expenses and dealer's profit. Send for cat. and prices

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Reduced to $41. Former Price $55.00

Famous "Barkley" Buggy, $41.00. Satisfaction guaranteed.

FRANK B. BARKLEY MFG. CO. CHICAGO, ILL.

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Cash PAID FOR Beeswax

For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 25 cents per pound, CASH; or 28 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly,** for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,

GEO. W. YORK & CO.
118 Michigan st., CHICAGO, ILL.

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Of Bee-Hives, Sections, Shipping-Cases, Comb Foundation, and **Everything** used in the Bee-Industry.

We want the name and address of every Bee-Keeper in **America.** We supply Dealers as well as consumers. We have Dry Kiln, Improved Machinery, 40 000 feet of floor space, and all modern appliances. We make prompt shipment.

Write for Catalogs, Quotations, etc.

Inter-State Manufacturing Co.,
HUDSON, St. Croix Co., WIS.

Please mention Bee Journal when writing.

'1847' ROGERS A1 SPOONS '1847'

Ladies can earn a set (of 6) Rogers A1 Silver Plated Tea Spoons, by selling an 8-lb. order of **Whitman's High Grade Teas, Spices, Baking Powder, Etc.,** or a set of Table Spoons, Forks or Knives for selling a 12-lb. order. Express prepaid on all orders accompanied by the cash. Send your full address on postal for catalogue, etc.

A. H. WHITMAN & CO., 2714 N. Western Ave., Chicago, Ill.

Please mention Bee Journal when writing.

Extracted Honey for Sale.

I have 30 kegs pure Basswood Honey, net 270 lbs. each, worth 6 cts. per lb., f. o. b cars here. Sample will be sent on application.

A. G. WILSON,
44A4t KICKAPOO, Vernon Co., WIS.

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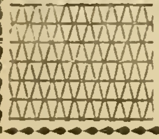

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45Dtf Please mention the Bee Journal.

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Simple, Perfect, Self-Regulating. Thousands in successful operation. **Lowest priced first-class Hatcher made.**

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OUR SUCCESSFUL INCUBATOR will prove it if you use it. Send 6c for new 128 page catalog and study the merits of our machines. Has valuable points on artificial incubation and poultry culture generally. We manufacture a greater variety of Incubators and Brooders than any other firm. Sizes 50 to 800. Prices from $8.00 to $70.00.

Testimonials by the yard.

DES MOINES INC'B. CO.
Box 78 DES MOINES, IOWA.

41D5t Please mention the Bee Journal.

General Items.

Bees in Fine Condition for Winter.

My 73 colonies of Italian bees are in the very best condition for wintering. I have made a 21-foot addition to my bee-cellar. S. C. SWANSON.

Goodhue Co., Minn., Oct. 26.

Honey a Failure in Quebec.

My bees did not give me enough surplus honey to pay my subscription to the American Bee Journal, although I hope they will have sufficient to feed themselves during the winter. Honey was a failure in the Province of Quebec the past season. ZIPH. BOYER.

Quebec, Canada, Oct. 18.

Small Hives for Wintering.

I am an advocate of small hives for cold climates, and would say to Mr. Wisconsin (see page 630) that if he has everything in good condition he need not be afraid to winter his bees in six-frame hives, for I have wintered very successfully in six-frame hives for four winters, even if Dr. Miller does say they will play out. A complete hive of the Danzenbaker pattern would be too expensive for general use, I think: but I will try them for 1898.

D. N. RITCHEY.

Franklin Co., Ohio.

Report for the Past Season.

My summer's work, or my fall report, has not yet been sent in but I will try to do so now.

I started last spring with 43 colonies, increase to 65, and got about 1100 pounds of comb honey in 1 pound sections. I reared over 100 queens, requeened my entire apiary, except 4 colonies which were saved for a special purpose. In the spring I bought a breeder that was warranted to produce bees that would work on red clover the same as white. I had her safely introduced, and reared a number of as fine queens as I ever saw. Now, in order to improve my stock, I sent direct to Italy, last August, and bought one of their queens, of which I feel proud. She was caged, not in a Benton cage, but in a box 6x7, by 4 inches deep, having 3 small frames of comb and capt honey, and a water-bottle in it, with about 100 bees with the queen. They were sent by express, and were 18 days on their journey, and the queen was as lively as I ever received any that were on their journey but two days. Now if all goes well I will breed from the imported and rear my drones for mating purposes from the red clover strain, which I think will make a very desirable cross. My aim is to breed up a bee that is a leather color, and will winter on the summer stands, and work red clover more, and each year until I will have a perfect red clover bee.

I this year had a great deal more clover honey than buckwheat; as a general thing we get only buckwheat honey in this section, but white, red, and Alsike clover were very abundant this year, and our bees made good use of it. I do not want to say that we had not the clovers other years to secure a crop of clover honey, but we let our bees swarm,

BEES FOR SALE.

About 90 Colonies of Italians. Any one wanting to start an apiary cannot do better than to call on Dr E. Gallup, Santa Ana, Calif., and examine the Bees before purchasing elsewhere. Double sets of Combs in Langstreth-Simplicity Hives, and warranted a superior lot of Bees for business. Correspedence solicited. **Dr. E. GALLUP,**
SANTA ANA, Orange Co., CAL.

Please mention Bee Journal when writing.

"WATCH POUDER'S AD"

SEE THAT WINK!

Bee-Supplies! ROOT'S GOODS at Root's Prices.

Pouder's Honey-Jars, and every thing used by bee-keepers. Prompt service, low freight rate. Cat. free. Walter S Pouder,
162 Mass. Ave.,
INDIANAPOLIS, INDIANA.

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☞ IF YOU WANT THE —BEE-BOOK

That covers the whole Apicultural Field more completely than any other published, send $1.25 to Prof. A. J. Cook, Claremont, Calif., for his

Bee-Keeper's Guide.

Liberal Discounts to the Trade.

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PATENT WIRED COMB FOUNDATION

Has No Sag in Brood-Frames

Thin Flat-Bottom Foundation

Has No Fishbone in the Surplus Honey.

Being the cleanest is usually worked the quickest of any Foundation made

J. A. VAN DEUSEN,
Sole Manufacturer,
Sprout Brook Montgomery Co. N. Y.

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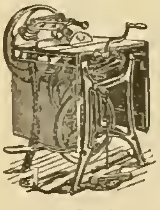

ONE MAN WITH THE UNION COMBINATION SAW

Can do the work of four men using hand tools, in Ripping, Cutting-off, Mitring, Rabbeting, Grooving, Gaining, Dadoing, Edging-up, Jointing Stuff, etc. Full Line of Foot and Hand Power Machinery. Sold on Trial. Catalogue Free.

SENECA FALLS MFG. CO.,
46 Water St SENECA FALLS, N. Y.

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BEE-KEEPERS! Let me send you my 64-page Catalog for 1897.

J. M. Jenkins, Wetumpka, Ala.

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California ⁂

If you care to know of its Fruits, Flowers Climate or Resources, send for a Sample Copy of California's Favorite Paper—

The Pacific Rural Press

The leading Horticultural and Agricultural paper of the Pacific Coast. Published weekly, handsomely illustrated $2.00 per annum. Sample Copy Free.

PACIFIC RURAL PRESS,
330 Market St., - SAN FRANCISCO, CAL.

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THROAT AND LUNG DISEASES,
DR. PEIRO, Specialist
Offices: 1019, 100 State St.,
CHICAGO. Hours 9 to 4.

Please mention Bee Journal when writing.

and would hive them, and by the time they were again ready for boxes the clovers were past, consequently we got no clover honey.

Last spring I clipt all my queens, and in swarming I would cage the queen, return the swarm, in 6 or 7 days cut out all cells but one, if the bees were good, and if not I would destroy all and give them one of my breeder cells; in that way I requeened, kept down swarming, or rather increase of colonies, and secured a good crop of white honey, and increast my apiary between clover and buckwheat. However, I sell buckwheat honey faster than clover honey, and could get a cent or two more a pound for it, but I sell all alike, and in the home market people come for it, some 16 miles—no trouble to sell all I can produce.

In queen-rearing I had no trouble to get good cells. In one instance I had a colony whose queen was a Carniolan mated to an Italian drone, and not wishing to rear any of those black drones, and have them mate with my Italian virgin, I removed the queen, gave them a cell, which they destroyed, and began to rear theirs by the dozen. I let them go till 8 days after I removed their queen, then I went for them, took frame after frame, shook off all the bees, and destroyed every cell; gave them a frame built about half way down, and containing eggs just hatching into larvae, from my breeder. The result was, in due time I had 45 fully developt capt cells—more than I could make use of. I reared queens on a small scale for 3 years, and have kept bees for 5 years, but this year I lookt up my old American Bee Journals, and found Dr. Gallup's method of introducing queens with tobacco smoke; I can introduce when robbers are bad and no honey coming in, by removing the queen in the evening, or caging at any time of the day, and lay the cage with the queen on top of frames to keep the colony quiet, for if the queen is removed the bees will run all over the hive and hunt for their queen, and then is the time robbers will attack them. In the evening, after bees have stopt flying, open the hive, remove the queen, blow in on top of the frames a few whiffs of good, strong tobacco-smoke, so it gets between each comb, then let your new queen run in on top of the frames; cover up and close the hive, and give a few good puffs in at the entrance. Hybrids need a double dose and till morning all will be well and the new queen is introduced. To cage the queen in the daytime, when robbers are bad, carry the colony into a building. I have introduced the first of October with success with this method. Many thanks to Dr. Gallup for the method.

PAUL WHITEBREAD.

Luzerne Co., Pa. Oct. 22.

* * *

Been Through About All.

I am glad of one thing, that is, that Mr. Bevins has broken his 20-year silence. With Father Langstroth dead, Dr. Gallup growing old, Bevins dumb for 20 years, and a pupil hunting the columns of the "Old Reliable" for some thing readable, and finding such contemptible rot about bee-spaces, what are we to look for next?

I have been through about every disaster in bee-keeping that there is for me except foul brood. I got my bees here in Florida all ready to give me a ton of

Finest Alfalfa Honey!

IT SELLS ON TASTING.

The Honey that Suits All Who Buy It.

Low Prices Now!

We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 7 cents per pound; 2 cans in one case, 6¾ cents; 4 cans (2 cases) or more, 6½ cents. The Cash MUST accompany each order.

☞ A sample of the honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

GEORGE W. YORK & CO., 118 Michigan Street, CHICAGO, ILL.

Page & Lyon Mfg. Co. New London, Wisconsin,

Operates two sawmills that cut, annually, eight million feet of lumber, thus securing the best lumber at the lowest price for the manufacture of

Bee-Keepers' Supplies.

They have also one **One of the Largest Factories** and the latest and most-improved machinery for the manufacture of

Bee-Hives, Sections, Etc.,

that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polisht on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equipt with best machinery, all combine to enable this firm to furnish the

Best Goods at the Lowest Prices.

Send for Circular and see the Prices on a Full Line of Supplies.

Please mention the American Bee Journal. 7Atf

BEE-KEEPERS We make

The Very Finest Line of **SUPPLIES** in the Market, and sell them at Low Prices.

Send for Free Illustrated Catalog and Price-List.

G. B. LEWIS CO., WATERTOWN, WIS.

Special Agent for the Southwest—E. T. ABBOTT, St. Joseph, Mo.

Mr. Abbott sells our Hives and Sections at Factory Prices.

That Queen-Clipping Device Free!

Works Like a Charm.

The Monette Queen-Clipping Device WORKS LIKE A CHARM. With it I have clipped 30 queens, all in one day, when examining my bees. WM. STOLLEY, Grand Island, Nebr.

Couldn't Do Without It.

I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now.

DR. GEO. LACKE, Newburgh, Ind.

PLEASE READ THIS OFFER TO PRESENT SUBSCRIBERS:

Send us *just one new name* for the American Bee Journal a year (with $1.00), and we will mail you the Queen-Clipping Device FREE of charge. Or, the Queen-Clipping Device will be sent postpaid for 30 cts. But why not get it as a Premium by the above offer You can't earn 30 cts. any easier. Almost every bee-keeper will want this Device.

GEORGE W. YORK & CO., 118 Michigan St., CHICAGO, ILL.

DO
YOU
SEE
THIS?

We believe as our customers do, that there is no Remedy more generally useful or that gives such uniform satisfaction as

Yellowzones.

Good for people who have no faith in them, same as for those who have.

No Opium, No Antipyrine,
No Habit.
Safe, Quick and Reliable.

For PAIN and FEVER.

Specially useful in Coughs, Colds, Bronchitis and rheumatism common at this season.

CAN YOU GIVE US
AT LEAST
A TRIAL ORDER
ON THIS TESTIMONY?

PRICE BY MAIL.
1 Box, 25 cts. 6 Boxes for $1.00.
Most orders are for 6 boxes.

W. B. HOUSE, M.D.
Drawer 1. DETOUR, MICH.

You may not be sick, but you Will Like to read these kind words regarding Yellowzones, and will say the same Yourself.

Safe, Sure and Speedy.

DEAR DR. HOUSE:—

We have used your Yellowzones in our family for some time. Have found them a safe, sure and speedy remedy for all headaches, colds, rheumatism and neuralgia. We heartily recommend them to any who are troubled with pains or fevers. Very sincerely yours,

REV. JAMES TOMPKINS, D. D., Chicago,
Supt. Illinois Missionary Society.

Two Editors.

GEO. W. YORK, of *Am. Bee Jn'l*, Chicago, says:—

We are not in the habit of giving a personal recommendation of the value of any medicine, but in this case we make an exception. We believe that Dr. House sends out a "Yellow" remedy that will make *House*fuls of happy people in torrid or frigid "Zones."

In a private letter Editor York also says: — Yes, sir; fine reports have come to us about your medicine . . . . . I shouldn't hesitate to advertise Yellowzones — in fact should feel that I was helping along a good thing.

REV. G. HOLZAPFEL, Cleona, Pa.
Editor of *The Pulpit*
and *Preacher's Helper.*

One Yellowzone always knocks a headache "sky-high."

When preachers know the real worth of your preparation you ought to enjoy a good trade direct from them.

Wants 'em Quick!

I shall telegraph you this morning for Yellowzones, and you'll find pay enclosed. Mrs. M. has the Grip, and they have helped her materially.
DR. A. B. MASON,
Toledo, O.

Enthusiastic!

I want to send you my enthusiastic commendation of Yellowzones. I have suffered all my life from headaches. For the last 10 or 12 years they have come every 2 or 3 weeks, and often every week, and so severe that I would have to drop my work and go to bed for a day or two. I have had some headache since beginning the 'zones, but it has been light, and I have not had to loose a day from my work in the 4 months.

My wife also finds them the best thing for headache she has ever used. Numbers of others, to whom we have given samples, have had a like experience.

One of our friends who has always suffered from headache when riding on the cars, on a recent trip of about 200 miles, entirely escaped her usual sickness by the use of a 'zone or two. Several others have had almost instant and complete relief from Neuralgia. **It is surely a remarkable remedy.**
REV. H. C. LEACH, Hancock, N. Y.

I truly and cheerfully testify to the worth of Yellowzones. We have used them for Headache, Earache, Rheumatism and Nervousness, and find them *convenient, quick and sure.*

Make whatever use you like of these words of commendation. REV F. L. FORBES,
Principal Pendleton Academy,
Pendleton, Oregon.

Enclosed find $5.00 for Yellowzones. Am well pleased with them. The young man's hand, that was paralized is about well. Stopped other medicine and gave Yellowzones.
W. B. COLLINS,
Blackwater, Mo.

My Husband, who is using them for Sciatica, says they are the best remedy he ever saw.
MRS. A. B. ALEXANDER,
Brownwood, Tex.

Our Agents,

Both ladies and gentlemen, are very enthusiastic, and are making splendid sales. One good agent needed in every community, and if you want business, and *mean* business. I shall be glad to correspond with you.

Your Own Testimony
. . . . will be similar.

Zonets.

To make Yellowzones of even greater service we add to each box the unique feature of a capsule of Zonets, purely vegetable, which we believe are unequaled in their delightful action upon liver and bowels. They intensify the action of Yellowzones when there is torpid liver, sluggish bowels or diarrhea. As a gentle Laxative take 1 Zonet 3 or 4 times a day for stronger action 4 to 6 at one dose. For Diarrhea dissolve 1 Zonet in 10 teaspoonfuls hot water, and take ½ teaspoonful every hour.

Zonets Alone, 35 Cents, per 100.

I Guarantee

every box to give you satisfaction, or money refunded upon request.

The Best Testimony

is the fact that up to the present writing **no customer has ever expressed dissatisfaction, or asked for return of money**——and that repeated orders constantly come from former customers, and sales are rapidly increasing.

If you keep but one Remedy in the house it should be Yellowzones.

They will please you beyond your expectation.

orange honey to 20 colonies, only to wake up and find the trees frozen down, and the bloom dead. I have taken 5 colonies from Florida to New Hampshire in a hand satchel, built them up through the summer, but thought my feathers would not be out and plumed fit to crow until I had wintered them. In the spring I had lots of nice empty comb, but no bees. Well, I got my empty combs all covered last summer, and just as I was figuring how much sugar I would have to feed to get them filled for winter, behold they were all filled full, and the queens crowded out, the fall flow not over, and no extractor! I packt up my bees and rusht down here to Florida, got together the scattered remnants of my apiary during the fall flow here, and now I find the bottom has been knockt out of the price of honey.

I won't take any more space now, for I want to hear from Mr. Browo, Florida's migratory bee-keeper.

E. B. WHIPPLE.

Orange Co., Fla., Oct. 30.

Wired Frames and Buckled Combs.

In using wired frames and full sheets or half sheets of foundation to get straight combs and avoid them buckling, wire lengthwise, take out all the slack, when foundation is attacht to the top-bar, make it hang close to the wires, but by no means imbed the wire in the foundation, as I find it wrong; as the bees draw the foundation out the wire is in place, and takes a bearing at proper time. Have the hive level and everything will go all right. I cut my foundation ⅜ short at the ends and bottom, and have no trouble. This is my practice, and I have frames 10 inches deep under the top-bar, Langstroth length, as straight as a shingle. I don't have them any other way, and the above is the way I get them so.

Bees have done well here this season, better than for several years. We are bothered in the fall with bitter-weed—a good honey-producer, but it is no good. It grows on out land, about 14 inches high with yellow blossoms. Bees work on it from August 1 till now. Cows eat it, and the milk is too bitter to drink.

H. RISHER.

Ouachita Co., La., Oct. 25.

Experience With Bees.

In the spring of 1896 I bought 8 colonies of black bees in common box-hives. I gave a friend 4 of them to help me

The Bee-Keeper's Guide

This 15th and latest edition of Prof. Cook's magnificent book of 460 pages, in neat and substantial cloth binding, we propose to give away to our present subscribers, for the work of getting NEW subscribers for the American Bee Journal.

A description of the book here is quite unnecessary—it is simply the most complete scientific and practical bee-book publisht today. Fully illustrated, and all written in the most fascinating style. The author is also too well-known to the whole bee-world to require any introduction. No bee-keeper is fully equipped, or his library complete, without "THE BEE-KEEPER'S GUIDE."

Given For 2 New Subscribers.

The following offer is made to PRESENT subscribers only, and no premium is also given to the two new subscribers—simply the Bee Journal for one year:

Send us **Two New Subscribers** to the Bee Journal (with $2.00), and we will mail YOU a copy of Prof. Cook's book FREE as a premium. Prof. Cook's book alone sent for $1.25, or we club it with the Bee Journal for a year—both together for only $1.75. But surely anybody can get only 2 new subscribers to the Bee Journal for a year, and thus get the book as a premium. Let everybody try for it. Will you have one?

GEORGE W. YORK & CO., 118 Michigan St., Chicago, Ill.

RELIABLE INCUBATOR AND BROODER
Need We Say More?
All about them in Book on Incubation and Poultry. Sent for 10 cents.
RELIABLE INCUBATOR & BROODER CO., QUINCY, ILLS.
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Please mention the American Bee Journal.

transfer the 4 others to Simplicity 10-frame hives. I increast them to 14 colonies the same year, and gave them Italian queens, 3 and 5 banders. I obtained no surplus honey, in fact 10 of the colonies I had to feed granulated sugar. I wintered them all right. In the spring of 1897 I had 12 good colonies, and 2 drone-laying queens. The queens I killed and gave them each frames of eggs and brood, from which they soon had queens.

This season I have increast from 14 colonies to 41. All are now in fine condition for winter. I have had only one swarm hived in an empty hive. I made the increase by dividing.

I have all my queens clipt after the bridal trip. I had one colony divided 3 times, and then got 56 pounds of surplus honey from it. I used full sheets of foundation in all my hives the past season in the brood-chamber.

I have something to say about 3 and 5 banded bees. I did not have to feed a single colony of 3 banded bees this year nor last. I have taken 300 or 400 pounds of surplus honey this season, and not a drop of surplus has been stored by the 5-banders.

T. J. BAXTER.

Craven Co., N. C, Oct. 25.

Figwort—Poor Season.

Since seeing the picture of the Simpson honey-plant in the American Bee Journal, I have noticed a weed that grows in the cornfields and along the roads which very much resembles it. I enclose parts of the plants and would like to know if it is the same. [It has every appearance of being the same thing.—ED.]

This has been a poor season with us. It was so rainy during the white clover and Alsike honey-flow that the bees could gather but little, and that was of poor quality. The fall flow was light, but of good quality.

I increast from 13 colonies to 21, and took 550 pounds of honey, which was better than my neighbor did. This is my third year with bees. I started with but 2 colonies, each of which swarmed but once the first year, and one of the swarms skipt, and then one of the old ones died the first winter. I think I have done pretty well.

I will not say that I could not get along without the Bee Journal, but I will say that I could not afford to be without it.

HERMAN D. STEPHAN.

Wabasha Co., Minn., Nov. 1.

Stored Lots of Nectar—Poultry Doctor.

My bees stored lots of the luscious nectar in the past season, and I am afraid my home market will get a little weak before I get through with my crop, unless I can work it up some with honey leaflets.

Thanks for the book "Our Poultry Doctor" you sent me last spring. My fancy poultry has, every spring, about June, been plagued with diarrhea, and many of them die, and nothing that I could find around here would either cure or prevent. But "Our Poultry Doctor" saved every chick. It is a dandy—worth its weight in gold.

ELISHA CAREY.

Bucks Co., Pa.

Has the Figwort Honey-Plant.

I was reading G. W. W.'s description of figwort the other day, and while walking through the hills to-day I found several of the plants. It is a wonder I did not find them in the summer when they were in full bloom, but I think my bees found them as they are about ¼ mile from my hives. Some of the plants are one foot tall, and loaded down with seedpods, and altho we have had three good frosts there are a few blossoms there yet. Some of the stalks measure ½ inch, and are growing among the rocks where it looks as if nothing would grow.

R. BENTLEY.

Pike Co., Mo., Nov. 1.

Results of the Season.

"The harvest is past, the summer is ended," and my "honey-tank attachment" is not filled. My record is 9 colonies, spring count (one queenless, with laying workers), increast to 16 by natural swarming, with clipt queens, and I have taken off 70 pounds of comb honey, which is not half enough for my "home market." I have two light colonies and shall unite them. The rest are strong in bees, with plenty of stores for winter. It is raining again to-day, and we hope to see the ground well soakt this fall, and look for a better year in 1898.

A. B. GINNER.

Cass Co., Nebr., Oct. 16.

Bees Didn't Do Well.

Our bees have not done very well this season. Basswood bloom was all killed by a late frost, and they have not workt much on white clover. We lost one colony by their becoming queenless. I like the Bee Journal very much, and hope I shall be able to take it another year.

MRS SOPHIA J. TUTTLE.

Blue Earth Co., Minn., Oct. 23.

A Book Recommended by Dr. Gallup.

THE NEW METHOD
In Health and Disease.

By W. E Forest, M. D., 12th Edition, Revised, Illustrated, and Enlarged. This is the greatest and best work ever publisht as a HOME PHYSICIAN, and as

A Guide to Health.

It makes the way from **Weakness** to **Strength** so plain that only those who are past recovery (the very few) need to be sick, and the well who will follow its teachings **cannot be sick.** It is now in many families the only counsellor in matters of health, saving the need of calling a physician and all expenses for medicines, as it teaches Hygiene and the use of Nature's remedies, **not a drug treatment.**

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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Oct. 19.—Fancy white 11 to 12c. No. 1, 10c.; fancy amber. 8 to 9c.; No. 1, 7.; fancy dark. 8c.; No 1. 7c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 4c. Beeswax, 26 to 27c.

There is a fair trade in honey, despite the amount that is being peddled about the city by parties who are coming in with it, and who take lower figures than quoted. as a rule. This however is customary when local yield is large.

Cincinnati, Ohio, Oct. 19.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.; No. 1 amber. 8 to 10c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 3½ to 4c. Beeswax, 20 to 25c.

Demand for honey is very slow, owing to warm weather and an abundance of fruit on our markets. Demand is good for beeswax.

Indianapolis, Ind., Oct. 19.—Fancy white. 11 to 13c.; No 1, 9 to 10c.; fancy amber, 9 to 10c. Extracted, white. 5 to 6c. Beeswax, 25c.

Demand for fancy white comb honey and fancy white extracted is exceptionally good, while there is almost no demand for dark or amber comb or extracted honey.

Detroit, Mich., Oct. 20.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c ; fancy dark, 8 to 9c. Extracted, white, 5 to 5½c.; amber, 5c.; dark, 4c. Beeswax, 25 to 26c.

Honey is selling fairly well. with supply up to the demand.

Milwaukee, Wis., Oct. 19.—Fancy white, 12 to 13c.; No. 1, 11 to 12c ; fancy amber, 8 to 10c. Extracted, white, 5½ to 6c.; amber. 4 to 5c.; dark, 4 to 4 1-2c. Beeswax, 26 to 27c.

This market for honey is in a very fair condition, and the consuming capacity is being enlarged. The supply is very fair, although we think there will be room enough for further shipments. The general quality of the comb honey so far is an improvement over last season. which fact we are pleased to note, and hope it will continue, more and more.

Cleveland, Ohio, Oct. 19.—Fancy white, 12½ to 13c.; No. 1, 11 to 12c ; fancy amber. 9 to 10c.; No. 1, 8c.; fancy dark. 7c.; No. 1. 6c. Extracted. white, 6 to 6½c.; amber. 5 to 5½c. Beeswax. 28 to 30c.

The demand for honey is increasing and we believe it will continue as the weather gets colder. We would advise shipping white honey, but dark is not moving sufficiently to encourage shipments.

Buffalo, N. Y., Nov. 5.—Fancy white is moving briskly at 11c., stray sales at 12c., and good to choice stock mostly at 10c.; buckwheat and dark honey ranges from 8 to 6c., as to actual quality. The demand is excellent for all grades of honey Extracted ranges from 6 to 4c., with moderate sales. Beeswax is very scarce, and strictly pure sells quickly at 27 to 28c.; adulterated, etc., proportionately lower.

Now is the time to market honey, rather than wait longer.

New York, N. Y., Oct. 20.—Fancy white, 12c.; No. 1. 10 to 11c ; fancy amber, 0 to 10c.; No. 1, 9c.; fancy dark, 8½ to 9c.; No. 1, 8 to 8½c. Extracted, white, 5 to 5½c.; amber, 4½ to 5c.; dark, 4c. Beeswax, 26 to 27c.

During the past two weeks the market has not been so active, probably on account of the warm weather. When cooler weather sets in to stay, we expect a more active demand again. Southern in barrels is in good demand at 50c. per gallon. Beeswax in good demand.

Minneapolis, Minn., Oct. 19. — Fancy white, 10½ to 11½c.; fancy amber, 9¼ to 10c. Extracted, white, 5½ to 5¾c.

The market could stand more goods, if desirable quality. Fair demand for all grades. but fancy meets with ready sale. Would advise shipping now.

Kansas City, Mo., Oct. 20.—Fancy white. 12c.; No. 1. 10 to 11c.; No. 1 amber, 8 to 10c.; Extracted, white, 5½ to 6c.; amber, 5c.; dark, 4c. Beeswax. 22 to 24c.

Receipts of comb honey are large; extracted is light.

Philadelphia, Pa., Oct. 23.—Fancy white, 13 to 14c.; No 1. 12c.; fancy amber. 10c.; No. 1. 9c.; fancy dark, 8c.; No. 1, 7c. Extracted, white, 5 to 6c.; amber, 5c.; dark, 4 to 4½c. Beeswax, 26 to 27c.

Honey is moving very lively; our market uses more now than any time during the year. Beeswax in good demand; very light supply.

Boston, Mass., Oct 22. — Fancy white 13c.; No. 1, 11 to 12c.; fancy amber. 10c. Extracted. white, 6 to 7c.; amber, 5 to 5½c. Beeswax, 26c.

While the demand is fair, it is not as good as it should be at this season; but with cold weather we look to see a better demand.

St. Louis, Mo., Oct. 21.—Fancy white, 11 to 12c.; amber, 9 to 10c.; dark, 7 to 8c. Extracted, white, 5¼ to 6c.; light amber. 4½ to 5c.; amber, 4 to 4½c. Beeswax, choice yellow, 26c ; prime, 25 to 25½c.; dark, half price.

San Francisco, Calif., Oct. 27.—White comb, 1-lbs., 7½ to 9½c ; amber, 4 to 6c. Extracted, white, 4¼ to 4¾c.; light amber. 3½ to 3¾c.; dark tule, 1¾ to 2¼c. Beeswax, fair to choice, 22 to 24c.

There is a tolerably firm market for choice to select water white. both comb and extracted. with not much of the same offering. In a small way on local account higher rates than are quotable are realized. Dark grades fail to receive any special attention, despite the fact that such are obtainable at low figures. There is no lack of demand for beeswax, and not much offering. At the same time, wholesale buyers refuse to operate at any advance on previous rates.

Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Reasons for Using Comb Foundation Except for Straight Combs.

Query 62. — Are there any reasonable reasons for using comb foundation, except to secure straight combs?

If there are no such reasons, the new Michigan convention no-sidewall 14-feet-to-the-pound-foundation will become the standard, as one pound of it will fill from 60 to 100 more sections and be less artificial —SUBSCRIBER.

Mrs. L. Harrison—I know of none.

E. France—I don't know, as I am not a comb-honey man.

Prof. A. J. Cook—Yes. Economy, and full frames of comb.

Wm. McEvoy—Yes, to secure more better-filled sections.

Jas. A. Stone—No, unless you wish to get comb honey for exhibit.

W. G. Larrabee—Yes. It saves work for the bees. But perhaps the no-sidewall foundation will do as much.

J. M. Hambaugh—Yes, in the brood-chamber; but your foot-note presumes to answer the straight-comb enigma in sections.

Emerson T. Abbott—Yes ; it saves the time of the bees in secreting the wax, and the amount of honey it is necessary to consume in order to produce the same.

Dr. C. C. Miller—Yes, there are other reasons, but they would perhaps apply equally to the no-sidewall. But that doesn't settle whether it will become standard.

G. M. Doolittle—If the bees accept it as readily, if it stays in place as well, and has as nice an appearance in the finisht product, the new Michigan may prove a saving.

R. L. Taylor—Yes, there are several other good reasons, as the better fastening of the comb in the section, the more rapid working of it, etc. Your conclusions are perhaps too hasty, anyway.

G. W. Demaree—I think there is. Our honey seasons—rather, "honey flows"—are often so short that a colony of bees has scarely time to build and complete a single set of ten combs while the honey-flow lasts. Under these circumstances I have found comb foundation a great help.

Dr. J. P. H. Brown—Yes, sir ; *more* "reasonable reasons." A great one—the saving of honey to the bees in not having to form or excrete the bulk of wax for the comb. All the sidewall wax will be utilized.

C. H. Dibbern—Why, yes, if used in brood-frames, one great opject is to secure nearly all worker-comb. This could not be secured if there were no sidewalls. For sections, this new Michigan article may be all right.

Rev. M. Mahin—The principal advantage in using comb foundation consists in getting straight combs without the use of separators. There is also some advantage in getting an early start in the sections. I think that bees will begin work sooner in sections partly or wholly filled with foundation, than where no foundation is used.

J. A. Green—Yes. Bees start work in sections better when the honey-flow is light, fill the sections better, and finish them sooner. Without foundation they will often build drone-comb, which does not look as well as worker. I see no especial advantage, but some serious disadvantages, in doing away with sidewalls.

Eugene Secor—I do not understand the drift of this question. *I* use foundation for three reasons, whether reasonable or not : 1st, *to secure straight combs* —but that depends more upon separators than on foundation. 2nd, *to secure even combs.* 3rd, *to secure combs well attacht to the wood on all sides.* Full sheets secure conditions mentioned in 2 and 3.

J. E Pond—In my opinion there are many reasons other than the one stated, for using foundation ; but the one reason that it does produce straight combs is to me sufficient. We do not wish drone-comb to any extent in the brood-chamber (at least I don't). That is one reason. The honey supply is greater with the liberal use of foundation ; that is another. I might amplify, but I answer a plain question in a plain way.

A. F. Brown—The use of comb foundation aside from the mere securing of straight combs has many advantages. In many instances it means the success or failure to secure a crop. I have never seen or tried the "no-sidewall" foundation. The regular make, 10 or 12 square feet to the pound, suits me. *I believe in the sidewalls, and I want them.* If they were made 1/16 inch deep it would suit me better ; over a sixteenth inch deep I hardly think practical.

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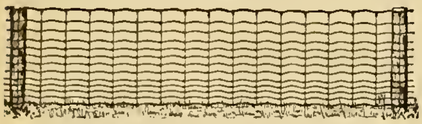

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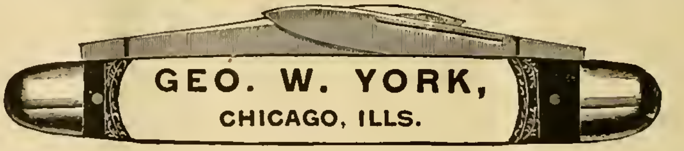

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Contributed Articles

An Old Illinois Bee-Keeper in California.

BY HON. J. M. HAMBAUGH.

I have been a citizen of California for over two years, as many are aware, and I have not since written a scratch for the good, old, faithful American Bee Journal, and I will now say that should kind Providence spare my good health, I will not be so derelict in the future.

Chief among the causes of making so stupendous a change was that of mine and wife's health. We first emigrated to Pomona, Calif., bringing with us a carload of household goods, or "emigrant outfit," as it was termed. Our trip was delightful, and without incident of note. Of course Grand Canyon of the Arkansas; Salt Lake and the Temple; Leadville above the clouds, falling snow and slush, tho in the last days of May; Truckee, on the summit of the Sierra Nevadas, with its 40 miles of snowsheds; Gate to the Garden of the Gods; snow-capt mountains, etc., were incidents of great interest to the family, and especially to the children, long to be remembered.

We arrived in Pomona June 4, 1895, moved into a small cottage, and turned ourselves over to the mercy of the land agents, speculators, etc. Of course, we were shown their special line of goods, and their meritorious points were elaborately pictured up, to the extent that was calculated to entrap the untutored tenderfoot, to all of which we listened patiently, occasionally making a note of the main points, and especially that of a financial nature. For five long weeks we were driven far and near, and were shown hundreds of beautiful orange, lemon, prune, and mixt orchards, and a more lovely country the sun never shone upon. But it seemed to me that the prices askt, with the attendant expenses, were too much for my limited finances.

By chance, at Pomona, we fell in with a gentleman and his wife, by the name of Andrew, who were but one week out from Grand Island, Nebr., and by some unaccountable affinity we became quite close friends. Mrs. Andrew had an acquaintance with whom she was in correspondence in San Diego county, said correspondent urging them to come to that place before purchasing property. Mr. Andrew and wife yielded to their persuasions, and the first return mail on their arrival bore a letter to me, urging me not to buy any property until I came and investigated the situation, which I did at the very earliest convenience, and found a country not so thoroughly settled, hence better opportunities for development.

I found all the natural resources here that are necessary to make a country great—a diversified soil, calculated to suit all kinds of mixt horticultural and agricultural pursuits; a thriving village of nearly 1,000 souls, under city ordinance, and an irrigation system; a large, beautiful brick college, costing nearly $30,000; two-story brick school building, two hotels, and two store buildings that would ornament a city four times its size; besides numerous other business houses, churches, etc. I was kindly driven over the country by land agents, and was very favorably imprest with the situation, to the extent that I returned to Pomona, chartered a car, and Mr. Andrew and myself put aboard our worldly effects, and billed them to this place.

We came overland in our surrey, Mr. Andrew and wife in their one-horse buggy, a distance of nearly 125 miles. The first day we drove 65 miles, putting up at Capistrano; it was here we had the most trying experience since our departure from Illinois, and which came nearly resulting in the death of our youngest child, Louis. He was taken very severely with croup, and were it not for the timely effects of coal oil, we would probably have lost him.

Hon. J. M. Hambaugh.

The second night out we put up at Oceanside, and the family for the first time were lulled to sleep by the roar of the breakers upon the beach. This was a very unique experience to them, and as my wife exprest it, "The awful roar and dash was sublime in the extreme."

Well, the next day about three o'clock p.m., found us in the land of our adoption. Our carload preceded us, and we were enabled to at once move into a small cottage, and without worrying the readers with our vicissitudes, I will picture as best I can my present location, so that if by chance any should come to the "Hidden Vale," they may seek the "Sunny Side Apiary" of the Pacific Slope, under the direct supervision of your humble servant.

Some 12 or 15 years ago, a gentleman by the name of Merriam, in traveling over the solitudes of the new-born settlements in Southern California, came into a lovely valley, whose soil and natural advantages at once attracted and captivated his acute perceptive faculties, and in which he at once resolved to pitch his tent. This little valley, nestling between rugged and lofty mountains, was not at this early stage known by any name, and Mr. Merriam christened it "Twin Oaks" Valley. Not far from Mr. Merriam's residence are the famous "Twin Oaks." They are very large, but a foot or two of space between them, their branches intermingling. They are almost identical in appearance, and are visited by hundreds of curiosity seekers. On arrival, inquire for "Twin Oaks." You will be told that it is five miles northwest of the city. Should you be fortunate enough to be driven over the route, you will pass along avenues flankt on both sides with citrus and deciduous fruit-orchards, extensive grain-fields, fine residences, ornamental trees, evergreens, and yards at all times redolent with variegated flowers. Arising in the background on either side may be seen beautiful rolling foothills and lofty mountains reaching several thousand feet in altitude. When nearly four miles distant from the city you will come to quite a lengthy but gradual ascent, and upon reaching the highest point, should the atmosphere be clear, the great Pacific Ocean can be seen toward the setting sun, and the valley of "Twin Oaks" opens like a grand panorama far below, stretching far back into the winding recesses of the mountains to the north. A bird's-eye view at this point will reveal a cottage unpretentious in appearance 300 feet below, and possibly one-fourth of a mile distant. This cottage is accompanied with a barn and other out-houses, located in the center of a newly planted orchard of prunes, apricots, peaches, etc., while immediately around and in front of the residence may be seen orange, lemon, palm and other useful and ornamental trees. A hedge of cypress can be seen enclosing the sides and front, while to the south the evidence of the bee-crank is plainly manifest, by the rows of bee-hives arranged with little regard to order. This is where I have "*hung up*," and struggling to stem the current of hard times, and again do what little I can in the rank of progressive bee-keepers.

My place is located at the extreme southern or lower end of the valley; above me are lovely orchards; vineyards, residences, etc., and mountains on both sides covered with the sages—a veritable paradise for bees.

And now to my report, as to what I have done in this line since my *debut* as a California citizen: I bought 20 colonies of bees last February, and moved them a distance of nine miles to my present home. I had on hand 10 colonies I bought the year previous. I transferred them all out of their original hives into the 10-frame Simplicity during the month of March, having many of the combs to cut out of their original frames, and transfer into the regular standard Langstroth size. This put them back fully two weeks, and my neighbor bee-keepers were having swarms and extracting honey two weeks before me. But when my bees did get down to business, their progress was very rapid. Their surplus arrangements were prepared mostly with full sheets of foundation, and it seemed that they drew them out like magic into full drawn combs, filled with honey, and then the swarming-fever became general. I was not equipt with surplus arrangements sufficient to increase the storage capacity in proportion to the strength of the colonies to occupy them, hence the increase was very large.

At the commencement of the season I had 29 colonies in working trim, one having been robbed shortly after it was transferred. I also requeened three colonies. My increase was from 29 to 52 colonies, and surplus honey secured 46 cases of 120 pounds each, making 5,520 pounds, or nearly 190 pounds to the colony, spring count. This is not so bad for the first effort of a tenderfoot Sucker, considering all drawbacks. I also obtained nearly 100 pounds of beeswax. More anon. San Diego Co., Calif., Oct. 20.

⁂

Queen-Rearing—Some Concise Directions.

DR. J. P. H. BROWN.

Mr. S. A. Deacon, of South Africa, on page 612, has interspersed so much good humor along with his "Trials and Troubles at Queen-Rearing," that it had a markt effect on my "risibles." Well, it seems he went at it scientifically; his *will* was all right; his work was honest and square; he tried the very latest and "up-to-date" process. True, in hatching the cells he never got quite as far along as the cook-stove process, the manure plan, the clam-shell improvement, and the old sitting hen "annex." It may be that our late authors discarded these once-highly-recommended processes.

In all probability, after Mr. Deacon gets farther along in his "trials and troubles," his experience will pan out somewhat after that of the woman who preferred the old-time process of getting babies to any new fangled plan.

Now, Mr. Deacon, I have been studying the history of the hive-bee for over 30 years—have in this time not only reared thousands of queens, but tens of thousands. Some things about the business I have learned, and many things I don't know. One thing I do know, that the best, most prolific and longest-lived queens are reared in full colonies at swarming-time. At this time the hive is literally boiling over with bees—with young bees; and both honey and pollen are plentiful. These are the conditions to be observed in rearing first-class queens. You must keep your operations within the grasp of the instinct of the bee. The more you try to bend this instinct—the more you deflect it—the less your success.

In a short article like this, only a few general ideas can be given, but they can be elaborated and reduced to practice.

In queen-rearing, there are hundreds of small details to attend to—they have to be met at once. No books can enumerate them—no solutions can be given to suit all cases. They can only be solved and adjusted by the ready tact and practical sense of the queen-bee order.

1. The larvæ should not be over 24 hours old. This is a very important matter. Not too much should be given the breeding colony. The idea should be to *concentrate* the force of the colony to a few cells rather than distribute the force over a whole frame of uncapt brood.

2. The bulk of the nurse-bees *must* be young ones, if well developt cells are wanted. Old bees make *poor* cells—often fail to make any, some assertions to the contrary notwithstanding.

3. The hive must have plenty of honey and pollen.

4. The comb containing the larvæ must have enough recesses or openings beneath the larvæ so there will be no obstructions to the building of cells.

5. The temperature must be favorable—nights warm and pleasant.

6. Your breeding hives should not have less than four frames, the size or area of the Langstroth. Little 4x5 boxe

are not fit to develop No. 1 queens—neither is a pint of bees equal to the task.

The plan for securing young nurse-bees to populate your breeding hive may be something like the following:

First, secure the larvæ, and properly prepare it and adjust it in a frame of old, *clean* comb. Place this in the hive. Draw a frame of *honey and pollen*, but no eggs nor larvæ, from a strong colony; hang this also in the hive. Draw another frame of sealed honey, but no larvæ, and put into the hive. Shake all the bees off these frames first. Hang in an empty frame or one filled with foundation for a fourth one. Your hive has now four frames. It should have 1½-inch ventilating holes at each end, covered with wire-cloth. Set it 20 or 30 yards from the other hives.

Go to a full colony and draw three or four frames that are well covered with bees, and shake them in front of the hive. The bulk of the old bees will fly back to their hive, and the young bees you must make run into the breeding hive. Go to other strong hives and draw more bees, and shake in front until you get fully two quarts or more of bees in the hive. You now have nearly all young bees. Close the entrance with wire-cloth, and carry to a cool, dark room, and let it remain till near dark, then carry it to its stand. It is best to set up some obstructions in front to ward off robbers or strange bees.

In nine days from the time of forming it, cut out all queen-cells but one. Place these in other hives prepared to receive them. Destroy all puny cells—best to do this now, rather than wait to destroy puny queens.

Richmond Co., Ga.

Bee-Moth or Wax-Moth—Questions Answered.

BY PROF. A. J. COOK.

The following from Mr. C. Theilmann, of Wabasha Co., Minn., is of special interest:

PROF. COOK:—I take the liberty to ask you some questions about the wax-moth, on which myself and other bee-keepers cannot agree, namely: How (in what way) do the eggs of the wax-moth get into a colony of bees? There may be some instances where the moth lays the eggs direct in the hive, but I never saw any so laid, in normal colonies. I hold that the moth lays the eggs on the pollen of the flowers, and the bees gather them and store them with the pollen, where they hatch as wee little worms, hardly visible to the naked eye; then protect themselves with a web or net of their own fabrication, and, as they advance in regular gangs, they feed on the larval food while they spin the nearly-matured larvæ of the bees fast to the comb which holds them. Thus crippled they are gnawed out by the workers and thrown out of the hive.

If the moth-worm is not molested or killed by the bees, then when it is matered it finds a crevice or bores a hole and goes into the pupa state, and hatches out a caterpillar ¾ of an inch long. This I understand is the wax-moth. Am I correct? If not, what is it called?

My opponents say: Every bee-keeper knows, if anything, that the wax-moth lays the eggs directly in the hive, and only there. Kindly inform us who is right and who is wrong.

My experience is this: When a comb with pollen is exposed to zero weather during the winter, no wax-moth will ever hatch from it; while a comb taken from a hive and protected with a wire-screen, and put along side of the other in summer-time will be alive with moth-worms in a very short time, all starting from the pollen. How did the eggs get there? You will do us a great favor by any information on the subject. I am aware that we have different species of moths which infest our bees and their product. One is a very little fellow about ⅛ of an inch long, which, with favorable conditions, gets very numerous, on clear section honey, and makes many little holes in the combs, so they are unfit for the market. What is the name of this moth? I never have seen it in the hives, and only on comb honey in close or sultry rooms if left there for any length of time. There is another large, dark, grey moth over one inch long, with big body, which plays havoc sometimes with weak, queenless colonies, yes, destroys them entirely. What is the name of this moth?

Have you ever seen pure melted wax attackt by moths? I have not. Others claim that they have. How is this?

C. THEILMANN.

I am glad to reply to Mr. Theilmann, and especially so, as I doubt not many others are vext with the same doubts that he is.

I do not think that he is correct. I do not think the bee-moth, *Galleria cereana*, ever lays her eggs on the pollen in the flowers. First, we never see her about flowers, as we certainly should if her nidus were there. Second, we never find her eggs on the flowers, as I feel sure we would were they placed on the anthers that bear the pollen. Third, we always find the moths lurking or flying about where there are combs, either in bee-hives, with bees, in empty hives or boxes with combs, or else in bee-houses where combs are housed. As is true of all insects, they are attracted to the spot where they wish to lay their eggs. Here it is the combs that lure them, for on or near the combs they are to lay their eggs. Fourth, we know that sometimes they enter the hives to lay their eggs, for we actually discover them in the act; hence, it is presumable that they always do, when they are able to do so. I have no doubt but that the bee-moth or wax-moth always lay their eggs on the comb, or as near it as they can get.

If we leave combs in summer in a box they will be stockt with eggs and peopled with moth-larvæ, altho no bees have been near them. This alone seems to me fatal to Mr. Theilmann's theory regarding the eggs being laid on the pollen in the flowers. If the moth cannot get into the hive she will lay her eggs close by the entrance outside. Other insects act similarly. The potato-beetle does not always lay her eggs on the potato leaves, but often on grass or weeds close beside the potato-vines.

The bee-moth is doubtless attracted by some odor, the wax, bee-bread, or something else about the comb. If possible she goes to the combs, else she lays her eggs as near to them as she can reach. I believe this last is true, as I have had combs attackt that could not possibly be reacht by the moth. The eggs hatch, and if possible the larvæ proceed at once to feed on the pollen or bee-bread, tunnel the combs, and fashion their silken runways. If the comb is not close at hand, guided by a sense which in insects is more delicate than we can understand from our own dull sense of smell, they pass to the comb, and commence operations as before.

I think Mr. T. is correct. I think very severe cold—possibly a zero temperature—kills the moths in winter. Mr. Quinby discovered this fact years ago. But combs in empty hives, exposed to such cold, will not be safe if left exposed the next season. The experiment Mr. T. suggests might be as follows:

The combs taken from the hive were already stockt with eggs or caterpillars from the eggs laid outside the hive, as already described. The other comb had been where the moth could not stock it with eggs. I have found two ways to keep combs practically free from moth-larvæ. First, keep them in good, strong, vigorous colonies of bees. This rarely fails, and almost never if the bees are Italians. Second, keep the combs in some box several feet from any place accessible to the moth. I do not think that combs hung so as not to touch in a light room are likely to be much troubled.

I do not believe the bee-moth larvæ feed much on the wax. I think it is more the bee-bread or pollen. The wax is not a perfect food, and seems so indigestible that we should hardly think it would serve for food at all, yet the wax-moth larvæ may have become adapted even to this food. It may do them some good, yet I think without doubt the bee-moth larvæ feed for the most part on the bee-bread. The jelly fed to the brood may serve in part for their food. I do not think that they ever feed on pure wax. I have never known them to do so, and am sure that pure wax could not sustain them. The insects usually pass the winter in the pupa state, and in the hives endure the rigors of the most severe climates that will permit the bees to pass without chill or death.

The wee bee-moth figured on page 413 of my "Bee-Keepers' Guide, or Manual of the Apiary," is not very common or injurious. The other destroyers are the Bacon beetles, *Tenebrio molitor*, and the common *Dermestes lardarius*. All are described in my book. The full description of the bee-moth with excellent illustrations are also found on page 409. Every bee-keeper should know the full life history of this insect. All know that the bee-moth will do little harm if the bee-keeper knows his business and is prompt to do as its needs require.

Los Angeles Co., Calif.

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Rearing Queens—Wintering—Laying Workers.

BY EDWIN BEVINS.

Somebody keeps punching me in the ribs, or somewhere, so that I find it impossible to get that 20 years' nap which I had concluded to take when I bade the readers of the American Bee Journal farewell, in August.

Dr. Gallup wakes me out of a comfortable snooze with his remarks about "Establishing a Standard for Queens." The Doctor has a pretty good idea of what a queen ought to be able to do, but I am considerably riled because he did not tell us how he rears such queens as the one he sold to "Arthur." I hope the Doctor will not go dead till he has made the matter as plain as a b c—and not for a long time after. I mean to try my "prentice" hand at rearing a few queens myself, next season.

Then that South African Deacon could not be content till he had gotten everybody to guessing why Doolittle, Heddon, Simmins, and the rest, tell us to take away *all* of the brood when we give a colony a batch of cell-cups. I can only guess that they tell us to take away all of the brood because of the possibility that we may leave some unsealed brood, and that the bees may neglect the cups and endeavor to rear queens from it. But then I do not pretend to know anything about it. The queen-rearers named are of age, and will, in due time I presume, speak for themselves.

A third prod with another stick in the hands of C. P. Dadant waked me up some more. I have wintered my bees for several years very much in the way recommended by him, and with perfect success. It will be observed that I am in about the same latitude. Instead of the lattice made of lath and strings, I make outside cases of boards removable in summer. Mr. Dadant objects to these on account of their cost and the room required to store them when not in use. I do not consider them very expensive where lumber good enough can be bought, as here, for one cent per square foot. Anybody can make them who can use a bandsaw and hammer. I would not hesitate to use them to the extent of two or three hundred. One can store them in the apple orchard or the calf pasture, with the sky for a covering, and they will keep just as long as unpainted hives which a good many use, and some prefer to use. But if I were to make many more than a hundred of them, I would make them so that the two sides and the one end would be easily separable, and then they could be stored in little space.

I use the covers to these outer cases for shade-boards to my hives in hot weather.

Again am I called upon to dispose of a laying worker. He, she or it has been numerous with me this season. But I have found a way at last to beat him or her or it every time. I had some colonies that failed to develop queens after swarming. Then I tried giving a laying queen in the usual way, but they were not accepted. Then I gave frames of unsealed brood, and the bees would not rear a queen. Then drone-brood became quite plentiful in the hives, and the bees seemed to be masters of the situation. Then I made some two-frame nuclei, gave each a good laying queen, and set the hives down close by the hives containing the laying workers. Occasionally I take a frame from the laying worker hive and put it into the nucleus hive. When about half removed, I set the laying-worker hive over the nucleus hive with a newspaper The thing works like a charm, and I go to bed nights now feeling that *I* am master of the situation.

But what does all this hullabaloo about bees and honey amount to when the comb honey producer has to take less than 10 cents a pound net for his product?

Decatur Co., Iowa, Oct. 3.

⁂

More About Improved Queens.

BY DR. E. GALLUP.

Now, then, Gallup has something about queens. Here in California many of the people hive a small swarm that they pick up in a retail cracker-box. It is 9 inches wide, 9 inches high, and 10 inches long, inside measure. Now you can readily see that in a series of years or generations of bees kept on that line we have cracker-box swarms, cracker-box queens, and a cracker-box is the full capacity of such queens. What I wish to know is, are you fully satisfied with that class of queens? Now, if in a series of generations you can deteriorate or run down to said capacity, are you sure that if you adopt a different policy you cannot in a series of generations increase the longevity of both queens and bees until they have a capacity to fully occupy a common barrel instead of a cracker-box? I, for one, know it can be done. I am using 8-frame Langstroth hives because bees in them will sell just as readily as larger hives.

Now, when I have a queen that will *fully occupy* 16 combs in 21 days, you can readily see that we have to run that hive at least 4 stories high in order to give the bees anywhere near room enough. When we get one queen of that class cannot we rear another one like her? We certainly can, if we go to work in the right direction. But I would not wish to start with a cracker-box queen. I would prefer to start with a queen from a man that advocates and uses large hives; and then in a few generations we could reasonably expect improvement instead of deterioration.

September 20 I had a small cracker-box swarm come to me, and on the 21st another. I can make good colonies of them by giving sealed brood and a good queen. All the swarms that have come to me (some 10) have been exceedingly small, only from one to three quarts of bees—cracker-box swarms—with the exception of one Italian swarm, and that was a good one, and had a 16-frame queen. She filled 16 frames in the 21 days, and the bees built all the combs in that time except one frame of foundation. I have queens of my own rearing every whit as good, but not quite as beautifully markt Albinos. I was from home when they came, and the boys said they came out of one of the Albino colonies, but on examination I found that they did not; neither did they come from any other colony in my yard, so I was puzzled to know where they did come from. But afterwards I found that a neighbor two miles north, lost an Italian swarm about that time. He obtained the queen from a man in Michigan, whom all know, so you see others besides Gallup rear prolific queens, and the bees are extra-good honey-gatherers.

This man, Mr. Paxton, uses small hives. The bees swarmed out and he hived them and set them in the hot sun; in a couple of hours they came out and he hived them again, and on going to look at them at night they were gone. He then went and lookt at the old hive, found about a pint of bees, a small patch of brood about as large as his hand, and the balance of the combs filled solid full of honey. Here was a case where a queen was compelled to leave for want of room. There were no queen-cells or unsealed brood.

When the young bees are sporting in front of that hive, they look almost transparent; their abdomens are pure yellow, except a small brown spot just at the tip. This demonstrates what I am trying to prove, that is, bees can be improved in looks and still keep up and improve all their other good qualities at the same time.

If large hives are not desirable, why did Quinby advocate and use them? Why do Hetherington, Dadant, and others, use them? Now do not say that they may work well in some localities and not in others. Neither expect a cracker-box queen to work successfully in a barrel hive, or *vice versa*. If you use large hives, use a queen to match, and you are all right, and that they can be reared I *am positive*. What has been done can be done again, only go at it in the right manner.

The queen above mentioned ought to have had a 16-frame Langstroth hive, and three stores high, providing we were going to run her for honey. Then ventilate sufficiently at the bottom, and they could be workt without swarming. This is not theory, but actual experience.

Orange Co., Calif.

⁂

Peddling Honey Made Easy—Good Suggestions

BY DAN WHITE.

I told you in my last article that I had about 7,000 pounds of extracted honey, and expected to sell every pound of it near home, and promist to report later on how I got along, so I will tell you about my experience in new territory.

You see, I must reach out further than ever before, so I decided to try a place 20 miles away—a place of about 5,000 people; so one morning I packt my grip and took two 12-pound cans of honey, and started out. About all I had in my grip was a good supply of honey leaflets, and 50 postal cards addrest to myself.

I got into the town just before dinner-time; and after eating a good meal at a boarding-house, I filled my pockets with leaflets and took one honey-can and commenced business. I started down a street and did not miss calling at every house. After ringing the bell, or rapping, a lady would open the door and look at me with more or less suspicion. I would say, "I made the call to ask you if your family were fond of honey."

They generally answered yes, but believed they would not buy any.

"Well," I would answer, "but I am not selling honey to-day. I am giving it away, and should be glad to give you some in a sauce-dish."

Some would look astonisht, others would smile and say, "That's funny;" but in *every* instance I was invited in. I would pour out the honey, then hand out a leaflet, telling them to read every word of it. "You will find it very interesting; it will tell you all about honey—how and why we extract it, etc. Then here is a postal addrest to me; and should you decide to want a 12-pound can, put your name, street and number on the card; drop it in the office; and when I deliver in about 10 days, you will get a can of honey."

Well, there were enough cards put in the mail within five days to take 30 cans of honey. I promptly made the delivery on time, taking along 20 extra cans, that sold about as fast as I could hand them out: and since then I have received orders for 50 more cans from the same town. I tell you, it has got all over town that a honey-man had been there selling *real* honey, 12 pounds for one dollar. I am certain this one place will take over 2,000 pounds, all in one-gallon cans.

Now, then, 18 pounds of honey given away from house to house; 50 postal cards, 200 leaflets left at houses and handed to people on the street, and one day walking over a very small portion of the town, has found a place for at *least* 2,000 pounds of honey. Then think what I can do next season, should I secure a good crop. All I have to do is to take a big load and go up there and hand it out. By the way, the honey sold there, was thrown out of clean, white combs, over every inch of whose surface the uncapping-knife had to go. It weighed strong 12 pounds to the gallon—just as good as the best comb honey, *only* it was out of the combs. Of *course*, I can go back just as often as I choose; yes, and the people will all be glad to see me.—Gleanings.

CONVENTION PROCEEDINGS

Report of the Utah Convention.

BY J. B. FAGG.

The Utah Bee-Keepers' Association held their semi-annual meeting at Salt Lake City, Oct. 5. Pres. Lovesy called the meeting to order, and the Secretary then read the minutes of the last meeting, and also the financial report, all of which was approved.

The President's Annual Address.

FOUL BROOD LAW.—While we are pleased to congratulate our bee-keeping friends that we meet under favorable conditions, still we have much yet to accomplish. After a long, hard struggle we now have one of the best foul-brood laws in the United States. Through the will of the bee-keepers it can be made to protect every bee-keeper and every colony of bees in the State, if necessary; and our bee-keepers in every county should interest themselves to get the law in force, and keep it in practical operation as long as there is a vestige of disease in the State.

SPRAYING.—The spraying question, which has caused much agitation and considerable loss to bee-keepers and fruit-growers, now seems to be favorably settled here. No coddling-moth ever did lay its eggs in the blossoms. Any person can prove this if he will take the blossoms, fruit, and larvæ into the greenhouse. If the temperature is kept up to 60° or more, the moth will hatch out and lay its eggs on the fruit, but not on the blossoms.

MARKETING.—One of the subjects which seems to be agitating the minds of many of our bee-keepers at present is the marketing of our bee-products. In union is strength, but the lack of it among our bee-keepers seems to be the cause of much loss and trouble. Some are almost giving away their products, and it is a source of annoyance to all. It is deplorable when we realize that it is for the want of union, and a lack of interest in each other's welfare. It might be different. The Savior once said, "I would have gathered you together as a hen gathereth her chickens under her wings, but ye would not."

THE LANGSTROTH MONUMENT.—Shall he have one? As bee-keepers should we not wake up in this matter? Is there not enough gratitude in our midst? Are we not generous enough to build a suitable monument to the father of the bee-industry in our country? And while he was a great bee-keeper, we all know that he was a good man; would it not be a burning shame to leave his last resting-place unmarkt? I sincerely hope that the effort to erect the monument may soon be crowned with success. We must contribute our mite.

E S. LOVESY.

The foul brood law was then read and approved.

Mr. H. C. Jorgenson, of Juab county, spoke of the bee-industry in his county. He said that the bees had not done as well there this year as they had done some other years. He said that his bees some years averaged over 75 pounds to the colony, but this year they had not stored over 45 pounds. He reported that foul brood was nearly stampt out in Juab county, and also spoke at some length on the sources from which the bees gather honey there.

Secretary Fagg spoke on the subject of wintering; also of crowding the queens out of laying-room, and how to avoid it by giving them frames of foundation. He also spoke of marketing the honey crop, and said it should be put up in the best shape possible.

Mr. F. Schach spoke of the difference in the working qualities of bees, saying that some would store large amounts of honey while others, under the same conditions, would hardly do anything.

Mr. J. Terry spoke of the different qualities of honey produced by the bees. He said that while the bees should have proper ventilation, they should be protected through the winter. Several other members spoke on the wintering of bees and on the marketing of the products.

Mr. Heywood said, as a rule, the bees in his locality had done well this season; while they had not swarmed much they had gathered lots of honey, and are in good condition for wintering.

Mr. Barrows said the experience of bee-men was much the same; that his best colony stored 264 pounds, while others did not yield much. He also spoke of his experience in wintering, and that he kept his colonies strong by examining the brood-chamber and supplying the queen with frames and foundation. He reported that this had not been an average year with him, his bees having averaged only 150 pounds, which was only about half the amount they stored some seasons.

A letter was read from Jas. Hacking, saying that his bees had done well this year. He had 180 colonies, old and new, and his crop of honey was 27,500 pounds, an average of nearly 153 pounds. He said that there were 2,950 colonies of bees in the county, but while all of them had not done as well as his, many of them had, or very nearly so.

Pres. Lovesy reviewed some of the remarks offered. He spoke on the wintering problem, and said that it was one of the most complicated problems of the industry; that a large colony of bees generated considerable heat, for this reason the bees must be kept dry, especially in winter; that while protection is good, the bees must not be sealed up air-tight, for in that condition they are liable to smother, or die from the foul air. He advised bee-keepers to give the queens laying-room, see that the bees have an abundance of stores for winter, and to keep all colonies strong at all times. If there is any secret to success, it is always in having strong colonies. Himself and Mr. Bouck had sent samples of honey to the Nebraska State Fair, and had obtained first and second premiums. Our Nebraska friends treated them very kindly, and invited them to come again.

On motion of Mr. Heywood, a committee of three were appointed to represent Utah at the Trans-Mississippi Exposition at Omaha next year. The committee are E. S. Lovesy, Joshua Terry, and Jno. B. Fagg.

The meeting then adjourned till April, 1898.

J. B. FAGG, *Sec.*

BEEDOM BOILED DOWN.

Bee-Lice.—In an aggravated case where the use of tobacco-smoke failed to rout the bee-louse in two colonies, experiments were made upon single bees, and naphthalin was found the most efficient remedy, killing the lice in a short time without injuring the bees.—Pfaelz. Bzt. Fortunately bee-lice do not seem to flourish in this country, but it may be well to know how to meet them should they ever apply for naturalization papers here.

Scotch Heather.—The question having been raised in Gleanings whether the heather plant had ever been grown in this country, Mrs. Lambrigger avers that there is no mistake about it, quoting such good authorities as Peter Henderson and Gray's Manual to back up the assertion that it has been naturalized at Tewkesbury, Mass., Cape Elizabeth, Maine, and also in Nova Scotia and Newfoundland. *Calluna vulgaris* and *Erica cinerea* are both terms that do duty as botanical names for the common heather.

Weight of Sections.—"This year 17,728 1⅞ sections averaged 14.41 oz. each, against an average last year of 15.088 oz......The variation in the weight of finisht sections this year was very great. The lightest case of 12 sections was 8½ lbs., and the heaviest case 12¾ lbs. Of course, the lightest section of the lightest case and the heaviest section of the heaviest case were still farther apart. It hardly seems right to sell such sections by the piece."—Stray Straws, in Gleanings. The editor of Gleanings, however, stoutly maintains that selling sections by the piece is all right, at least "in some localities."

Winter-Passages in Combs.—G. M. Doolittle is askt in Gleanings, page 774, whether it is well to have holes made in brood-combs so the bees can readily pass through and thus avoid being left to chill in little clusters outside the brood-nest. He refers to the fad for that sort of thing some years ago, when among other things holes were bored through the center of the combs by means of a square stick, a hole being bored in the side of the hive to allow the stick to be pusht through, the last survivor of the fad being Hill's device, and says he thinks there is no benefit in anything of the kind. He found that bees would die within half an inch of the holes, also that the little knots of dead bees found on the outer combs were only after the first contraction of the main cluster from the cold, subsequent expansions and contractions not resulting in the death of fresh knots, so he concludes that these bees die, not because they have been caught by the cold away from the cluster, but because they are bees ready to die of old age, instinctively leaving the cluster, and hindered from leaving the hive by the cold, they do the next best thing, and congregate in their dying hour on the outer combs.

Spoiling the Market.—Dan White makes an earnest plea in Gleanings against spoiling the market for extracted honey by throwing unripe stuff upon it. Even bee-keepers with large apiaries are spoiling the market for themselves and others by selling unripe honey. Such being the case, it is little wonder we hear so much about poor markets, especially for extracted honey. Those who care to establish a permanent set of customers for their honey will do well to paste up on the looking-glass this sentence of Mr. White: "Don't forget that *very few* people get tired of good, first-class honey; and above all, remember that almost any one will tire of poor, thin, unripe honey."

The New-Old Section and Separator.—The senior Root has neglected his turnip patches and hot-beds long enough to make one of his periodic excursions into the region of beedom, lured thither by the sight of the new section and separator. He gives to some extent the history of the development of the section and separator, and declares there is not a new feature about the new section with its four plain sides of equal width throughout (how could there be in a section as complicated as a dry-goods box?), nor yet in the fence-like separator, only that we have just awaked to the proper appreciation of the combination, and he is enthusiastic over its simplicity and utility, believing it must rapidly supersede all other styles.

Grading Honey by Pictures.—A. I. Root is a great man for pictures, and in bequeathing an assortment of his various characteristics to his son, Ernest, the love of pictures was not omitted. And now the said son proposes to use pictures to aid in grading honey. Appoint a committee at the next meeting of United States Bee-Keepers' Union to select representative sections of the different grades, say four sections in each grade, the four ranging from the best to the poorest admissible in that grade, photograph them, then print half-tone pictures on cards, the four sections of one grade, life-size, on each card with the proper name attacht. With a card of each grade before him, the grader would be to some extent in the position of one who had the sections themselves before him to compare with. The idea is well worth trying, we think.

Bees Gathering Wax.—A correspondent of Gleanings suggested the plan of furnishing beeswax to bees in the form of small scraps, in order to save the time of the bees and the honey used to secrete the wax. He was answered that the most economical way was to furnish the wax in the form of foundation. But the editor admitted that bees do gather wax in dull seasons, evidently referring to the bits of wax that bees scrape from old combs or the like, carrying it into the hive on their legs. At this the "stray straw" man mixt in, saying he had some evidence that not a particle of such wax was ever used for comb building, but only as a substitute for or in combination with propolis. The editor thinks he has evidence to the contrary, and as a last word cites the fact that in dull seasons, or when the honey-flow is moderate, the bees almost invariably build combs heavier than when honey comes with a rush.

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

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Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offers on page 733.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Loss of Mating Queens—Light Brood Foundation—3 or 5 Banded Bees—Planting for Honey.

1. I keep my bees in the city. I lost 50 per cent. of my queens the past season on their bridal trips, and I attributed the loss of such a large percentage to the river. It is my opinion the queen and drone, when they meet, fall to the water and drown. Is my theory correct?

2. I will make 50 hives for my increase next year. I have now at the sawmill to be drest, 1,000 feet of juniper plank. It is the lightest and most durable wood grown in the South. Do you think light foundation for the brood-chamber will answer? and for 50 10-frame Hoffman hives, how many pounds of light foundation will it take, using full sheets?

3. What is your opinion of the difference in 3 and 5 banded bees? I am going to try 5 bands one more year, and if they do no better than in the past, I will replace with 3 bands?

4. I can rent land in this section at from $3.00 to $5.00 per acre. Would it pay to rent and plant honey-producing plants for the bees? If so, what would you advise me to plant? The land is one mile from the city, is poor land, and would need a fertilizer to produce much vegetation.

North Carolina.

Answers.—1. It is quite possible you are right, altho the loss seems very heavy from that cause alone.

2. Light brood foundation will be all right if your frames are well wired. It runs eight sheets to the pound, so for 50 10-frame hives it will take 62½ pounds, more or less, for it does not run of exact weight.

3. Taking them all in all, I doubt whether you are likely in general to get anything better in 5 bands than in 3, altho there is much difference, and some 5-banders may be as good as any of the 3-banders.

4. I don't believe you can get your money back on it for honey alone. If sweet clover has value in your region as a forage plant, then you might do well to invest. It would probably do without fertilizers, and would act upon the land somewhat as a fertilizer.

Two Queens in a Hive—Bitter Honey—Balled Queens.

1. I opened one of my hives having an Italian colony, the other day, and in looking over the frames I found two queens. Why were there two queens in that hive?

2. Does honey-dew make bitter honey? I got a nice crop of honey this season, and it was all bitter.

3. In looking over the frames of one of my colonies I found that the bees had balled one of my fine tested queens, which they killed at once. The queen was young and prolific, having the frames filled with eggs and brood. I introduced another one, which they killed in the same way. Why did they kill the queens? and what would be best to do with the colony?

Virginia.

Answers.—1. The probability is that the bees have reared a young queen to take the place of the old one, and it happens in a good many cases that the old queen is left for some time after the advent of her royal daughter. It is not so very unusual to find mother and daughter laying on the same comb. But you will probably find that the mother will disappear in a short time.

2. It is not specially bitter, but of dark color and usually of disagreeable taste. The bitter honey probably came from special flower. It is barely possible that the honey will improve with age.

3. It isn't easy to say in all cases why bees ball their own queen. Generally, however, it is from fright. It is very probable that you were yourself to blame for the death of the first queen. You say she was balled and killed at once. When bees ball their own queen, indeed when they ball any queen, they are not likely to kill her at once, but keep her imprisoned, and if they kill her at all it will be after balling her till she is worn out. But if the bee-keeper attempts to pull apart the ball and forcibly remove the queen, she is very likely to be stung to death. Upon opening a hive I have a good many times found the bees in the act of balling the queen, but in such case I close the hive as quickly as possible and leave the bees to themselves, and the next day the queen will be found laying all right. If for any reason you want to get a queen away from a ball of bees, don't try to pull her away by force, but steadily blow smoke upon the ball till all the bees let go and try to get out of the way. Be careful not to blow *hot* smoke on the ball, for that will make them sting the queen at once, but if you have a hot-blast smoker hold it far enough from the ball so the bees will not feel the heat.

If the bees have been queenless for a number of weeks, the best thing is to unite them with some other colony, altho they will not be of much use anywhere if they are very old. If the loss of the queen is a recent occurrence, and the colony is strong, and you have no need of the bees to strengthen any other colony, just let it alone till next spring and then give it brood and eggs from which to rear a queen.

A Case of Balled Queen.

For pleasure and experiment I have an observation hive which holds one Langstroth frame. Early in September I killed the black queen and the next day inserted three Italian queen-cells. These hatcht Sept. 10. I removed the darkest and kept the yellowest queen. I happened to witness her "bridal trip" Sept. 22; she began laying a few days later, but before she began I took out the old frame, because there was no honey and no brood, and put in a frame with plenty of brood, and the rest honey sealed over. The honey began to go, and so I began to feed. After about a week of feeding I noticed one day (Oct. 24) quite a solid bunch of bees at a certain point. I watcht it in the afternoon. I saw the queen in the center, as she had slowly workt her way to the glass. I saw by the way they hugged her that something was up, and that they were probably trying to "ball" her. I took the frame out, and still they hung together in a solid bunch. I finally liberated her, and she fell to the bottom of the hive; the bees then jumpt on her as if she were a stranger, and fought her as I have seen them when a strange queen goes to a hive-entrance. I secured her and put her into a queen-cage in the hive. The hive is quite full of bees and some brood. They are storing away the honey and sugar I am feeding; they gather a little honey and pollen every morning.

Were they "balling" her, or trying to protect her from some enemy? Why ball a young laying queen? Did they think she was laying out of season? or what was wrong? Would you liberate her now, or keep her caged longer?

They commenced to ball the queen in the morning, and it was 4 o'clock before we liberated her. The books I have seem to be silent on the subject.

Doctor.

Answer.—By referring to the answer to "Virginia's" questions in this department this week, you will find a pretty full answer to your question. The probability is that the bees balled the queen to protect her, and not at all because she was laying out of season. Better liberate her, and it might be well to take the precaution to liberate her as you would on introducing a queen, that is, allowing the bees to eat away the candy in the cage to liberate her.

Honey as Food is the name of a 24-page pamphlet, 3¼x6¼ inches, which we are now printing for general distribution among those who should be users of honey. It is just the thing for bee-keepers to hand to every one of their customers, and also to those whom they would like to have as customers. It is very handy in size—just right to go into an ordinary business envelope. It contains 12 illustrations, five of which are somewhat comic, and help to make it attractive. There is a blank space for your name and address. About ⅓ of the pamphlet was written by Dr. Miller, and then we added thereto many new and valuable honey recipes—for cooking and for medicinal purposes. In all, it makes a neat little pamphlet. Send name and address and we will mail you a sample of "Honey as Food."

Prices for quantities, postpaid—25 for 30 cents; 50 for 50 cents; 100 for 85 cents; 200 for $1.40. By express, not prepaid, 500 for $3.00; 1,000, $5.00.

The American Bee Journal

OLDEST BEE-PAPER IN AMERICA

GEORGE W. YORK, - Editor.

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United States Bee-Keepers' Union.

Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

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Editorial Comments.

Kind Words of Sympathy have come to us from many of our subscribers, upon the death of our dear baby, Oct. 27. As it is impossible for us to write to each kind friend a personal letter, we take this opportunity to sincerely thank all who have been so thoughtful, and have so sympathetically exprest themselves in tender words. We wish to assure all that such expressions are greatly appreciated by us.

◆

The Northwestern Convention was held last week Wednesday and Thursday, as per announcement, but owing to the railroads declining to sell excursion tickets to Chicago from Nov. 2 to the 13th, as previously advertised, of course the attendance was not as large as anticipated, but the interest was all right. Illinois, Michigan, Wisconsin, Indiana, Iowa, Ohio and Nebraska were represented. The following were elected as permanent officers after the adoption of a constitution:

President, Dr. C. C. Miller; Vice-President, Hon. E. Whitcomb; and Secretary-Treasurer, George W. York.

A shorthand report was taken, which we intend to publish immediately after the Buffalo convention report, which we now expect to begin next week.

◆

Foul Brood on the Increase.—Editor Root, in Gleanings for Nov. 1, has this to say regarding the dread disease of foul brood:

> We are receiving, almost daily, suspected samples of brood which we are requested to diagnose. In nine cases out of ten they prove to be foul brood. To-day (Oct. 20) I opened a sample of one of the worst cases I have ever seen. The odor from a colony affected would be sufficiently strong, I think, so that it could be detected several yards from the apiary. At all events, it was the "loudest"-smelling sample I ever came across. This almost daily receipt of samples of affected brood from all parts of the country is alarming.
>
> I have already found where this disease is making headway in portions of the United States that have more colonies and more bee-keepers to the square mile, I believe, than any other place in this country. In fact, the disease is apparently starting up all over the land, and it will need some vigorous measures and some good legislation to keep the disease in check. I would suggest that, in those States where there is no foul-brood law, bee-keepers send in a big petition to their next general assembly, asking for the needed legislation.
>
> A foul brood inspector (N. E. France) has been appointed for Wisconsin. A law was recently enacted; and with the State back of him the inspector proposes to make a clean sweep of the State.
>
> The good work done by Foul Brood Inspector McEvoy, of Canada, is too well known to need mention, and now the Canadian bee-keepers are practically masters of the disease.
>
> We on this side of the line cannot afford to let it get the start of us. Nearly all of the text-books on apiculture give good methods of treating the disease.

We wish to second the excellent suggestions offered by Mr. Root in the foregoing. It would be a good thing, too, if every bee-keeper would read up on the disease, so as to be able to spot it at once, should it attack his own apiary.

◆

Overstocking in York State.—Look out for a Klondike rush toward the region of Jefferson Co., N. Y. The editor of Gleanings, after reporting what big yields of honey he had found upon a trip through the State of New York, warned off all intruders by saying the ground was already overstockt. Now comes J. F. Petrie, who says that the opposite is the case in his locality, where he has wholesaled at 40 cents a quart extracted honey bought at Medina, and a neighbor woman reports a colony increast to nine in one season by natural swarming. He closes by saying: "I believe there are excellent localities here for the location of apiaries, and will answer inquiries from any one interested who will inclose a stamp." Now it will be just like some people to wonder whether Mr. Petrie may not be distantly related to some real estate agent.

◆

Knows the Ear-Marks.—The editor of Gleanings has been making a study of ears, and thinks he recognizes the one who does the "boiling" of the other bee-papers for our "Beedom Boiled Down" department, by certain cicatrices on his auricular appendages. You may be right, Mr. Root, but remember there's more than one specimen with big ears.

◆

Getting People into Bee-Keeping. — Mr. John A. Pease, of California, in the Pacific Bee Journal, has something to say about the low price of honey, and a good deal more against inducing people to embark in the pursuit of bee-culture. Here are his ideas as set forth in the article referred to:

> In the September number of the Pacific Bee Journal, in my article on the present low price of honey, I took the position that it was caused by the glowing reports of enormous crops of honey being produced all over the country, creating the idea in the mind of the public that the supply was far in excess of the demand, and causing people to hold off from buying, hoping to get lower prices later on; also causing some weak-kneed producers to offer their product at even less than the cost of production, thus demoralizing the market. I am also glad to see that several others—abler writers than myself—have taken the alarm, and are protesting against such foolish action, for altho it is too late to do us any good this year, yet I hope it may prevent people from making the same blunder in the future.
>
> But there is another cause that is even more disastrous in its consequences, because it is far more reaching; for while this is only temporary in its results, reaching through one year only, that has been going on for years until it has brought down the present to less than one quarter the former price. I refer to the practice of nearly, or quite all, of the

bee-papers and bee-books, and many bee-keepers, of holding out to the public the idea, that, for the capital invested, bee-keeping is the most profitable business that a man can enter into; and trying to persuade "the butcher, the baker, and the candlestick maker," and all others, to go into it. It is not strange that the supply dealer, or even the publishers of the bee books and papers, should do this, because the more bee-keepers there are the greater demand it makes for their wares; but, it is passing strange that bee-keepers can't see that every new recruit that enters the ranks is a new rival that will take away a share of their profits.

I know that bee-keepers are, as a class, inclined to be free-hearted, and like to see others prosper as well as themselves; and this is right. I believe in unselfishness, and in doing all in my power to help my neighbor, and if he wishes to engage in bee-keeping it is his right to do so; and if he needs any assistance I will give it freely, even tho I know that every pound he puts upon the market prevents me from selling a pound. But if he asks my advice about embarking in the business, I will tell him frankly and candidly that he had better keep out of it; and I believe that I would be just as unselfish in giving such advice as in assisting him if he was in the business and needed my assistance; for the business is already overdone, and in nine chances out of ten he would be disappointed and lose his time, if not all the money that he put into it, for it is a fact that ninety out of every hundred that engage in the business make a failure of it, and nine out of the other ten only make a partial success; so I think that it is not only for our own interests, but it is an actual kindness to others, to use all our influence to keep them from engaging in an enterprise in which the chances are largely against their succeeding. JOHN A. PEASE.

Surely the foregoing is passing strange when its author puts forth a claim to "unselfishness." He might as well say that if a new man goes into wheat raising, that will make the market just so much more overloaded for the producers already in the field. Therefore, no one should encourage people to go into wheat growing. Or, it is a kindness to discourage any one from planting orchards, for every bushel of apples or other fruit grown by the newcomer will displace a bushel produced by those already in the fruit-growing business! Strange arguments, indeed.

While we do not believe in holding out the hope to the prospective bee-keeper that bee-culture competes successfully with the newly-discovered Klondike in its golden results, still we do believe that if a man wishes to try to better his condition, and thinks he can by industry, study, and close application, make a success of keeping bees, you may be sure that we would be the last man to advise him to "stay out," or "keep off the grass." No, sir, we are not built that way, and we don't take any stock in the argument that the few pounds that a beginner produces is going to displace the crops of the experts or materially affect the market price of honey. And, besides, if nine-tenths of them make a failure of the business, why be so afraid of their competition?

Another thing, every leader in bee-culture to-day was once a beginner—once ran the risk of getting into the nine-tenths failure crowd. Of course, the Doolittles, the Dadants, the Millers, the Elwoods, the Hetheringtons, the McIntyres, yes, and the Langstroths, should all have been strangled before their bee-keeping infancy began, in order to be in line with the arguments of the Peases, and a few others who are *so* "unselfish" that they can't rest easy when they see a poor fellowman put forth an honest endeavor to gather in some of earth's wasting sweetness!

We are more and more reaching the conclusion that if some of the time now devoted to whining about low prices of honey were invested in an honest effort to extend its consumption, there would soon be no time left for whining. We are endeavoring to do our part toward helping to increase the demand for pure honey, and sincerely believe that the field is practically unlimited. Why, there are millions of people in our cities that never have tasted pure bees' honey. They don't know anything about its healthfulness and deliciousness. They have been trying to make themselves believe that the mixt-up glucose slops, put up by the adulterating devils, is *real honey*, and many of the consumers are fearing to buy, lest they get the disgusting glucose mess in place of the genuine article.

Talk about over-production of honey, with 70,000,000 people in this country, and not one-half of them ever tasting pure honey! Why, it's the rankest kind of nonsense. Dr. Miller had over 17,000 pounds of honey this year, and sold it all in one lump, at a good price. Suppose he had secured twice as much, do you think he would have had to beg for a buyer? No, sir; he would have shipt the 34,000 pounds just as promptly as the 17,000, and at the same price.

It will be some time ere we can be induced to believe that too much of the nicest comb or extracted honey is being produced. We know there is too much of an inferior grade, indifferently put upon the market, but there is no law preventing bee-keepers from putting forth their best efforts toward improving their honey product, and then doing their best to get the public to eat it.

The Weekly Budget.

MR. B. S. K. BENNETT, of the Pacific Bee Journal, has quite an extended write-up of his Eastern trip in the November issue of his paper. He reports a splendid time all along the way. The "associate editor," Mr. B. S. Eaton, reports that their paper "has never been self-sustaining."

EDITOR HUTCHINSON, of the Review, gives in his October number a very graphic discription of his visit to Niagara Falls just before the Buffalo convention. Mr. H. is an adept at giving clear and interesting descriptions of things or places. He ought to travel and then write up his experiences for some of the best home journals.

MR. CHAS. H. LAKE, the apiarist of the Maryland Agricultural College, is given a complimentary notice in the Somerset Journal, a newspaper publisht in that State. He is credited with having four apiaries in Kent county, five in Baltimore county, and 50 to 75 colonies at the college apiary. Seems to us he must be a busy bee-man.

"FRIEND YORK:—The "old reliable' American Bee Journal comes every week as regular as clock-work. I have got so used to looking for it every Saturday morning that I should certainly feel lost if it failed me; and there is always something in it that to be without would seem to me a greater loss than the price of a year's subscription."—E. S. LOVESY, Utah.

DR. MILLER, in a "stray straw" in Gleanings, says this about his honey crop for 1897:

"This year, from 239 colonies, spring count, I got 17,150 pounds of honey, all comb but 390 pounds. That is the biggest yield I ever got, but not the biggest yield per colony."

Editor Hutchinson, when commenting on the Doctor's crop, in the Review, said:

"And this in a locality where there have been very poor crops for several years. This is the best possible answer to the question, 'Will the good years come again?'"

EDITOR E. R. ROOT, when on his trip "down East" in August and September, took along his kodak, and some of the "shots" he has since been reproducing in Gleanings. Mr. Root is quite a photographer, and we are glad of it. We should like to do likewise, but with the Bee Journal issued *weekly*, we are held too close to our office to ever have time to ramble over the country very much to "take picters." But after all, we doubt if it pays for an agricultural journal to try to compete with the high-class and highly-illustrated literary papers of the present day. Still, if a publisher feels that he can go deeply into the liberal use of a costly line of half-tone engravings, it is all right. We don't object, for we like fine pictures, and would likely have more of them in the Bee Journal, *if*—well, if about a thousand of our good subscribers were a little more prompt in paying their subscriptions.

BEE-BOOKS

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Bees and Honey, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages, and 245 illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold-lettered. Price, $1.00.

Langstroth on the Honey-Bee, revised by Dadant—This classic in bee-culture, has been entirely re-written, and is fully illustrated. It treats of everything relating to bees and bee-keeping. No apiarian library is complete without this standard work by Rev. L. L. Langstroth—the Father of American Bee-Culture. It has 520 pages; bound in cloth.

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Bee-Keepers' Guide, or Manual of the Apiary, by Prof A. J. Cook, of the Michigan Agricultural College.—This book is not only instructive and helpful as a guide in bee-keeping, but is interesting and thoroughly practical and scientific. It contains a full delineation of the anatomy and physiology of bees. 460 pages; bound in cloth and fully illustrated.

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Bienen-Kultur, by Thomas G. Newman.—This is a German translation of the principal portion of the book called BEES OF HONEY. 100 page pamphlet. Price, 40 cents.

Convention Hand-Book, for Bee-Keepers, Thomas G. Newman.—It contains the parliamentary law and rules of order for Bee-Conventions—also Constitution and By-Laws, with subjects for discussion, etc. Cloth, gold-lettered. Price, 25 cts.

Thirty Years Among the Bees, by Henry Alley.—Gives the results of over a quarter-century's experience in rearing queen-bees. Very latest work of the kind. Nearly 100 pages. Price, 50c.

Practical Hints to Bee-Kee-Keepers—by CHAS. F. MUTH. Also contains a Foul Brood Cure and How to Winter Bees. 40 p.; 10 cts.

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Apiary Register, by Thos. G. Newman.—Devotes two pages to a colony. Leather binding. Price, for 50 colonies, $1.00; for 100 colonies, $1.25.

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Bee-Pasturage a Necessity.—This book suggests what and how to plant It is a chapter from BEES AND HONEY. Price, 10 cents.

The Hive I Use, by G. M. Doolittle. It details his management of bees, and methods of producing comb honey. Price, 5 cents.

Dr. Howard's Book on Foul Brood.—Gives the McEvoy Treatment and reviews the experiments of others. Price, 25 cts.

Silo and Silage, by Prof. A. J. Cook.—It gives the method in operation at the Michigan Agricultural College. Price, 25 cts.

Winter Problem in Bee-Keeping. by G. R. Pierce. Result of 25 years' experience. 30 cts.

Handling Bees, by Chas. Dadant & Son.—A Chapter from Langstroth Revised. Price, 8 cts.

History of Bee-Associations, and Brief Report of the first 20 conventions. Price, 10 cts

Foul Brood Treatment, by Prof. F. R. Cheshire.—Its Cause and Prevention. Price, 10 cts.

Foul Brood, by A. R. Kohnke.—Origin. Development and Cure. Price 10 cts.

Bee-Keeping for Profit, by Dr. G. L. Tinker.—Revised and enlarged. It details the author's "new system, or how to get the largest yields of comb or extracted honey." 80 p.; illustrated. 25c.

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Turkeys for Market and Turkeys for Profit, by Fanny Field.—All about Turkey-Raising. 64 pages. Price, 25 cts.

Rural Life.—Bees. Poultry, Fruits, Vegetables, and Household Matters, 100 pages. 25 cts.

Potato Culture, by T. B. Terry.—It tells how to grow them profitably. Price, 40 cts.

Hand-Book of Health, by Dr. Foote.—Hints about eating, drinking, etc. Price, 25 cts.

Bee-Keepers' Directory, by H. Alley.—Latest methods in Queen-Rearing, etc. Price, 50c.

Book Clubbing Offers.

(Read Carefully.)

The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only ONE book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted, see postpaid prices given with the description of the books on this page. Following is the clubbing-list:

1.	Langstroth on the Honey-Bee	$2.00
2.	A B C of Bee-Culture	2.00
3.	Bee-Keeper's Guide	1.75
4.	Bees and Honey [Cloth bound]	1.65
5.	Doolittle's Scientific Queen-Rearing	1.75
6.	Dr. Howard's Foul Brood Book	1.10
7.	Advanced Bee-Culture	1.30
9.	Bienen-Kultur [German]	1.20
11.	Rational Bee-Keeping [Paper bound]	1.75
12.	Thirty Years Among the Bees	1.30
13.	Bee-Keeping for Profit	1.15
14.	Convention Hand-Book	1.15
15.	Poultry for Market and Profit	1.10
16.	Turkeys for Market and Profit	1.10
17.	Capons and Caponizing	1.10
18.	Our Poultry Doctor	1.10
19.	Green's Four Books	1.15
21.	Garden and Orchard	1.15
23.	Rural Life	1.10
25.	Commercial Calculator, No. 1	1.25
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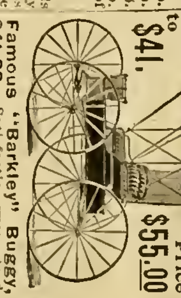

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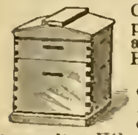

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Simple, Perfect, Self-Regulating. Thousands in successful operation. **Lowest priced first-class Hatcher made.**
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Working Wax Into Foundation for CASH **A Specialty,**

At Reduced Prices during the Winter.

My Foundation will SPEAK FOR ITSELF, and prices are O. K. So do not fail to write for a Catalog with prices and samples.

Beeswax taken in Exchange for Foundation or any other Supplies.

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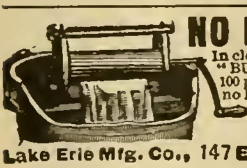

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Queens and Queen-Rearing.—If you want to know how to have queens fertilized in upper stories while the old queen is still laying below; how you may *safely introduce* any queen, at any time of the year when bees can fly; all about the different races of bees; all about shipping queens, queen-cages, candy for queen-cages, etc.; all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know—send for Doolittle's "Scientific Queen-Rearing"—a book of over 170 pages, which is as interesting as a story. Here are some good offers of this book:

Bound in cloth, postpaid, $1.00; or clubbed with the BEE JOURNAL for one year—both for only $1.75; or given free as a premium for sending us *two* new subscribers to the BEE JOURNAL for a year at $1.00 each.

Bee-Keeper's Guide—see page 733.

General Items.

Bee-Fever Running High.

I have taken 4581 pounds of honey. The bee-fever is running pretty high at this time. I had 4 acres of sweet clover that grew from 7 to 8 feet high. My bees are in fine condition for winter. I had 176 colonies. I put in 36 fine queens the last season.

F. J. R. DAVENPORT.
Ellis Co., Tex., Oct. 18.

Not an Encouraging Report.

My report for this year is very poor. I had 56 colonies in the spring, increast to 84. One swarm went to the woods, I doubled up to 80, and got 500 pounds of comb honey. The forepart of the summer was very cold and wet, until June 10, then we had nice weather until July 6, and after that it was very wet and cold at night. I expect to requeen all my colonies with young queens in the spring, and am already placing my orders.

G. W. BELL.
Crawford Co., Pa., Nov. 6.

Winter Repository—Skunks, Etc.

This has been a rather poor year for honey in Otsego County, although we got some surplus honey. I doubled my colonies so I now have 25 in good condition to go into winter quarters. I have just finisht my winter repository, which I commenced early last spring. I have workt at it by odd spells. It is all under ground, 15x18x6 feet, and has a 3-inch tile drain. It is naturally very dry, and the walls are 2 feet thick, mortared at the inside 8 inches, and at the outside the same, and leaves an air-space of 8 inches in the center. I also have 3-inch ventilators to use if necessary.

I have been troubled with skunks quite a little; they would come regularly every night and visit some of my hives. I set some traps and caught them in front of the hives, with no smell whatever. I watcht one of them and saw him scratch in the entrance with his front paw, and the bees would come out and Mr. Skunk would eat a very choice meal of them.

It is reported that foul brood has made its appearance in the northern part of this county. If such is the case I hope it will be stampt out at once.

A. G. PALMER.
Otsego Co., N. Y., Nov. 18.

Extracted Honey—Hive Ventilation.

If I am a judge of good things, I believe the bee-keeping brothers and sisters owe me a vote of thanks. Why? Simply because I have succeeded in breaking Mr. Bevins' 20 year Rip Van Winkle nap. Now, say, don't tell Mr. Bevins, but I thought when I wrote before that perhaps I might succeed, as the article on page 675 tells me that I have.

Now although Mr. Bevins admits that until certain conditions are changed, not every one should produce extracted honey, yet he does not give us those conditions, that is, he does not tell us what they are. If I remember correctly, Mr. Bevins, in his first article, leaves out all "ifs" and "ands," leaving us to infer that under existing circumstances *all*

BEES FOR SALE.

About 90 Colonies of Italians. Any one wanting to start an apiary cannot do better than to call on Dr. E. Gallup, Santa Ana, Calif., and examine the Bees before purchasing elsewhere. Double sets of Combs in Langstroth-Simplicity Hives, and warranted a superior lot of Bees for business. Correspodence solicited. **Dr. E. GALLUP,**
SANTA ANA, Orange Co., CAL.

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SEE THAT WINK!

Bee-Supplies! ROOT'S GOODS at Root's Prices.

Pouder's Honey-Jars, and every thing used by bee-keepers. Prompt service, low freight rate. Cat. free. Walter S. Pouder,
162 Mass. Ave.,
INDIANAPOLIS, INDIANA.

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☞ IF YOU WANT THE —**BEE-BOOK**

That covers the whole Apicultural Field more completely than any other published, send $1.25 to Prof. A. J. Cook, Claremont, Calif., for his

Bee-Keeper's Guide.

Liberal Discounts to the Trade.

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PATENT WIRED COMB FOUNDATION

Has No Sag in Brood-Frames

Thin Flat-Bottom Foundation

Has No Fishbone in the Surplus Honey.

Being the cleanest is usually worked the quickest of any Foundation made

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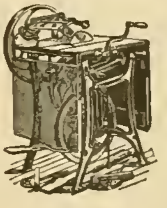

ONE MAN WITH THE UNION COMBINATION SAW

Can do the work of four men using hand tools, in Ripping, Cutting-off, Mitring, Rabbeting, Grooving, Gaining, Dadoing, Edging-up, Jointing Stuff, etc. Full Line of Foot and Hand Power Machinery. Sold on Trial. Catalogue Free.

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THROAT AND LUNG DISEASES,
DR. PEIRO, Specialist
Offices: 1019, 100 State St.,
CHICAGO. Hours 9 to 4.

Please mention Bee Journal when writing.

should produce extracted honey; then admitting that he was a *comb honey* producer, what else could I do but pick him up?

Now, Mr. Bevins, I am standing with my foot raised, ready to kick all those 8-frame hives into the middle of next week, as soon as you convince me there is something better; that is, after the bees have been removed, but excuse me from putting my toe up against them as full of honey as they are now.

Again, Mr. Bevins leaves us in the dark when he says he prefers 6-inch frames, but does not say *why*! So Mr. Bevins, *why* do you prefer 6-inch frames? and do you use them in the brood-chambers as well as supers? If not, what size and number in the brood-chambers?

Mr. Bevins finds fault with my manner of ventilation. Perhaps it *might* be better to raise the front end instead of the back, but I can hardly see why. No, Mr. Bevins, my bees do not loaf around the gap produced by raising the rear end, but, on the contrary, it prevents loafing.

If Mr. Bevins gets to sleeping too hard, I hope other bee-keepers will help me poke him in the ribs once in a while, and get a few of those dreams in print.

With the editor's permission I would be pleased to open a discussion in a short time, through the American Bee Journal, regarding the ripening of extracted honey; how many combs are wanted for a colony; and such like.

Good-bye, Mr. Bevins. I hope we will hear from you again soon.

E. B. Tyrrell.

Genesee Co., Mich., Nov. 1.

* * *

Bee-Keeping in Southern California.

I sometimes think that to understand how to handle bees a man needs to follow the business in Southern California, at least for one or two years. I thought before coming here that I could do anything I pleased with bees; but when I tried my hand with the mongrels, half-wild, half-civilized, and wholly savage, that may be pickt up almost any day of the year in this region, I soon found that they could do as they pleased with me, and have a good supply of energy left over for the next time.

More or less swarms abscond every favorable season, and many of them cluster on orchard trees, others find lodging places in the rocks in the mountains, in any kind of holes in the ground, in boxes of all descriptions that may be lying out in the open air, and in all kinds of buildings. A swarm of apparently pure black bees located in a rabbit-hole that had been dug down by the side of a well-curb only a few miles from my house. I got a fine colony of pure Italians that had taken possession of a large box-rabbit-trap on a neighbor's ranch. Another one I got that had gone into a little soap-box that lay in a neighbor's door-yard, and that had no bottom, and the top had several holes in it an inch in diameter. Through these the bees workt. There they had lived all of last winter, and sent out a swarm in the spring.

Sometime in the spring a man who lived about two miles from me came up and told me that a swarm of bees had gone into an upper room, over a chicken house, that was used for a kind of lumber-room, and he would like if I would go down and get them. I took an empty hive in my buggy and drove down. The bees had gone under some full sacks and

Finest Alfalfa Honey!

IT SELLS ON TASTING.

The Honey that Suits All Who Buy It.

Low Prices Now!

We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 7 cents per pound; 2 cans in one case, 6½ cents; 4 cans (2 cases) or more, 6¼ cents. The Cash MUST accompany each order.

☞ A sample of the honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

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Page & Lyon Mfg. Co. New London, Wisconsin,

Operates two sawmills that cut, annually, eight million feet of lumber, thus securing the best lumber at the lowest price for the manufacture of

Bee-Keepers' Supplies.

They have also one **One of the Largest Factories** and the latest and most-improved machinery for the manufacture of

Bee-Hives, Sections, Etc.,

that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polisht on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equipt with best machinery, all combine to enable this firm to furnish the

Best Goods at the Lowest Prices.

Send for Circular and see the Prices on a Full Line of Supplies.

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BEE-KEEPERS

We make The Very Finest Line of **SUPPLIES** in the Market, and sell them at Low Prices.

Send for Free Illustrated Catalog and Price-List.

G. B. LEWIS CO., WATERTOWN, WIS.

Special Agent for the Southwest—E. T. ABBOTT, St. Joseph, Mo.

Mr. Abbott sells our Hives and Sections at Factory Prices.

That Queen-Clipping Device Free!

Works Like a Charm.

The Monette Queen-Clipping Device WORKS LIKE A CHARM. With it I have clipped 30 queens, all in one day, when examining my bees. Wm. Stolley, Grand Island, Nebr.

Couldn't Do Without It.

I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now.

Dr. Geo. Lacke, Newburgh, Ind.

PLEASE READ THIS OFFER TO PRESENT SUBSCRIBERS:

Send us *just one new name* for the American Bee Journal a year (with $1.00), and we will mail you the Queen-Clipping Device FREE of charge. Or, the Queen-Clipping Device will be sent postpaid for 30 cts. But why not get it as a Premium by the above offer You can't earn 30 cts. any easier. Almost every bee-keeper will want this Device.

GEORGE W. YORK & CO., 118 Michigan St., CHICAGO, ILL.

into an old trunk partly filled with papers and clothing. In the corner of this trunk they had clustered, mostly in the lid. The hinges of this being broken, I took the lid with a majority of the bees and shook them into the top of my hive and closed the cover. I then turned the trunk down with the corner that contained the remaining bees against the alighting-board of the hive, and immediately they took up the line of march to join their companions already in the hive, and in 15 minutes from the time that I began the operation, I had almost every bee of the colony in the hive, and closed up ready to take home.

Once I had prepared a number of hives with foundation starters in the frames and stackt them up at the end of a tool-house near the bee-yard, to have them convenient when swarms came out. One day I noticed several bees working in and out of one of the hives, but supposed they were drawn there by the odor of the wax foundation; but a few days later, and while the bees were still there, an immense swarm came roaring down from the mountains and went into the hive where the few bees had been at work for nearly a week. The swarm was strung out till it took some minutes for the hindmost ones to arrive after the first ones had reacht the hive. Did this indicate that the swarm had come a long distance?

A number of swarms and colonies have been offered me by the neighbors this fall if I would go after them; but as I should have to feed them I have not thot that it would pay, so I have declined these gifts.

My bees in the yard gave 150 per cent of increase, and over 50 pounds per colony of comb honey, spring count, besides some extracted. Thus you see it is easy to pick up and build up an apiary here.

L. J. TEMPLIN.

San Diego Co., Calif., Oct. 27.

* * *

Good Report for 1897.

My report for 1897 is a good one. It has been the best since I kept bees. I got 300 pounds of section honey from 5 colonies spring count, and increase to 10 colonies. My bees are in good condition for winter, with plenty of honey. We have had a terrible drouth this fall. Wheat molded in the ground but the drouth is broken—it is raining hard to-day.

I have sold about half my honey for 12½ cents. Section honey does not sell well. People are crying hard times. Poor people are looking for prosperity, but have not found it yet.

Hurrah for the Bee Journal; it is right in line.

W. M. DANIELS.

Wood Co., Ohio, Nov. 2.

* * *

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MORE THAN 100,000 COPIES SOLD ANNUALLY.

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Nearly 70 Comprehensive Maps, many of them double-page.
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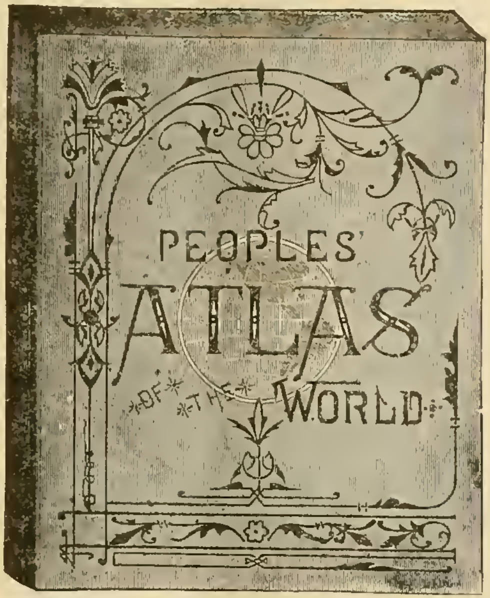
Population of each State and Territory, of all Counties of the United States, and of American Cities of over 5,000 inhabitants, by latest Census.



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Our Liberal Offers: We will mail this great Atlas, postpaid, for only 50 cts.; or for $1.40 we will send it with the Bee Journal for one year; or we will mail it free as a premium for sending us **one New Subscriber** ($1.00) to the Bee Journal for a year.

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The Bee-Keeper's Guide

This 15th and latest edition of Prof. Cook's magnificent book of 460 pages, in neat and substantial cloth binding, we propose to give away to our present subscribers, for the work of getting NEW subscribers for the American Bee Journal.

A description of the book here is quite unnecessary—it is simply the most complete scientific and practical bee-book published to-day. Fully illustrated, and all written in the most fascinating style. The author is also too well-known to the whole bee-world to require any introduction. No bee-keeper is fully equipped, or his library complete, without "THE BEE-KEEPER'S GUIDE."

Given For 2 New Subscribers.

The following offer is made to PRESENT subscribers only, and no premium is also given to the two new subscribers—simply the Bee Journal for one year:

Send us **Two New Subscribers** to the Bee Journal (with $2.00), and we will mail YOU a copy of Prof. Cook's book FREE as a premium. Prof. Cook's book alone sent for $1.25, or we club it with the Bee Journal for a year—both together for only $1.75. But surely anybody can get only 2 new subscribers to the Bee Journal for a year, and thus get the book as a premium. Let everybody try for it. Will you have one?

GEORGE W. YORK & CO., 118 Michigan St., Chicago, Ill.

Don't Make Bee-Fencing.

No; we don't manufacture a bee-fence. This is in reply to numerous inquiries from our advertisement in the American Bee Journal. We have thought it would be a good thing if some people had a high-geared bee-fence, so that the apiary would not encroach upon the highway and allow the bees to become so pointedly acquainted with the passers-by. The hog fence and sheep fence have both absolutely failed to keep our own bees at home, or to keep our neighbor's bees from coming over and gossiping with ours. But when we erected a strip of the 25-bar 58-inch high stock-fence, advertised in the Bee Journal, we found that it was proof against everything except bees and flies, and, to own up to the truth, the full truth, we have to acknowledge that we never saw a bee fly through or over this fence! Not only so, but the hogs, sheep, horses, cattle, and bulls never interfere with the hives any more. The drones slowly dragged themselves out, took a look at the meshes, size of the wire, and height of the fence, concluded they were in a jail, and died from shame. The queens even donned their regal robe, drest themselves in their most fascinating attire, and took an airing in perfect safety, although we really did lose one queen; she was a dusky widow, given to roaming, always wanted to visit her neighboring "king" bees. I say, she gets away sometimes, but 'tis fair to state that she makes her exits and entries by going and coming over a pond where the fence has been taken down. We call her Lilioukulaui.

J. H. R.

Special advertiser for the Page Woven Wire Fence Co.

◆

Report for the Season.

As the honey season is over for this year, I will send my report. My bees came out of winter quarters in pretty fair condition; but the spring was wet and cold, and continued so until way long in May, which put the bees back a good deal.

When clover came on, they had not yet swarmed, but as the clover didn't amount to much they didn't begin swarming till towards the last, and then it was so dry that the clover dried up, and at the same time stopt swarming till buckwheat bloomed.

Last year the clover didn't amount to anything, and this year but little, but "next year" (as they all say) I hope it will be better.

The few sections that were started on clover were only about half completed, and so were finisht on buckwheat, which made a nice mix-up.

The basswood has not yielded the last two seasons; it has bloomed enough, but has contained no nectar. In this neighborhood a fall flow is almost sure. This fall was an extra good one.

I obtained as high as 75 pounds of comb honey from old colonies that had swarmed, and as well from swarms that were hived in July. I obtained in all about 600 pounds from my 27 colonies, which are now packt on their summer stands for winter in chaff-hives, and in splendid condition.

FRANK RASMUSSEN.

Moutcalm Co., Mich., Nov. 8.

◆

Short Crop of Honey—Foul Brood.

Our bees here gave about one dollar's worth of honey per colony, spring count; extracted at 10 cents, and comb, one-pound sections, 12 and 12½ cents. There was a light crop in the summer, and fall feed good. The hives are full of honey and young bees, so look out next year for a crowded market. My honey was all sold to the people in three days after the last of it came from the hives, and I bought to fill orders.

I was very glad to see the Wisconsin foul brood inspector, N. E. France, Aug. 24. I had one white fungus colony, caused by chilled brood in the spring of 1896. It won't bother me any more now. He, or whoever takes his place, has work enough to do. I know one man that lost over $1000 by buying a few foul broody hives. He had to fight foul brood in some 200 colonies more or less for two years.

O. E. CLARK.

Calumet Co., Wis., Nov. 8.

Steel Wheels
Staggered Oval Spokes.
BUY A SET TO FIT YOUR NEW OR OLD WAGON
CHEAPEST AND BEST
way to get a low wagon. Any size wheel, any width tire. Catal. FREE.
ELECTRIC WHEEL CO., Quincy, Ill.

BEE-PEOPLE
Are not exempt from other people in that they do not have
COUGHS, COLDS, BRONCHITIS and RHEUMATISM,
especially at this time of the year when the above ailments are decidedly prevalent.
Yellowzones
WILL CURE THEM.
See our Testimonial Ad. in the Bee Journal of Nov. 11th. There is plenty of proof. No family should be without it.
For PAIN and FEVER
It is unexcelled. Just try a sample order and be convinced.
PRICE BY MAIL.
1 Box, 25 cts. 6 Boxes for $1.00.
Most orders are for 6 boxes.
W. B. HOUSE, M.D.
Drawer 1. DETOUR, MICH.
Please mention Bee Journal when writing.

For a knife that will cut a horn without crushing, because it cuts from four sides at once get
THE KEYSTONE DEHORNER
It is humane, rapid and durable. Fully warranted. HIGHEST AWARD AT WORLD'S FAIR. Descriptive circulars FREE.
A. C. BROSIUS, Cochranville, Pa.
40E6t Please mention the Bee Journal.

Extracted Honey for Sale.
I have 50 kegs pure Basswood Honey, net 270 lbs. each, worth 6 cts. per lb., f. o. b. cars here. Sample will be sent on application.
A. G. WILSON,
44A4t KICKAPOO, Vernon Co., WIS.
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A Special Booklet Bargain!
For a limited time we wish to make our readers a **special offer** on booklets on Bees, Poultry, Health, etc. Upon receipt of **75 cents** we will mail any **6** of the list below: and **for $1.25** we will mail the **whole dozen**:

1. Foul Brood, by Dr. Howard	25c
2. Poultry for Market and Profit	25c
3. Turkeys for Market and Profit	25c
4. Our Poultry Doctor	30c
5. Capons and Caponizing	30c
6. Hand-Book of Health, by Dr. Foote	25c
7. Kendall's Horse-Book	25c
8. Rural Life	25c
9. Ropp's Commercial Calculator	25c
10. Foul Brood, by Kohnke	10c
11. Silo and Silage, by Prof Cook	25c
12. Bienen-Kultur, by Newman	40c

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New Subscribers for November and December, 15 cts. See page 694.

Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Use of Leveled-Down Combs.

Query 63.—1. What is your experience regarding the use of leveled-down combs in sections?

2. Do you find that their contents are more liable to granulate, or sometimes to ferment, than would the honey obtained by using only starters or full sheets of foundation?

3. How thick should the comb be after being leveled down a la the late B. Taylor?—QUERIST.

Prof. A. J. Cook—I never used them.

Mrs. L. Harrison—1. I've no experience.

Eugene Secor—1. I have never used a leveler.

E. France—1. I have no experience in that line.

G. M. Doolittle—2. No. 3. From ¾ to 1 inch.

J. E. Pond—1. I have had no experience in the matter.

Jas. A. Stone—1. I never had any experience along that line.

W. G. Larrabee—1. I value them highly. 2. No. 3. About one inch.

J. M. Hambaugh—1. I have never used leveled-down combs, *a la* B. Taylor.

A. F. Brown—1. Very little. 2. No experience. 3. Not over ¼ inch depth of cell on each side.

R. L. Taylor—1. So far with me they are not capt so well nor so quickly, and so fine in appearance as to color. 2. I am inclined to think they do. 3. To an inch at most.

C. H. Dibbern—1. I have practiced the leveling-down process to some extent, and am highly pleased with it. 2. No; I find it just as good as when foundation is used. 3. Leveled comb should not be over ½-inch thick.

Emerson T. Abbott—1. I never used any. 2. I have used drawn combs without leveling them down, and always secured a poorer quality of honey when I did so. I think it is a mistake to encourage the use of drawn combs. 3. I don't know.

Dr. J. P. H. Brown—1, 2 and 3. I have never found any difference between leveled-down combs and those formed on foundation as influencing granulation or fermentation. The amount I take off the comb depends upon its condition and appearance.

Dr. C. C. Miller—Answering your questions in a lump, I take no stock in the idea that leveling is necessary except to get clean combs and avoid brace-combs. If honey sours or granulates in them they've not been properly cleaned *by the bees in the fall.*

G. W. Demarree—1. My experiments along this line have been very satisfactory. I use an apparatus consisting of a bright tin plate heated by a lamp, with a reservoir to catch the melted wax, and gauged to regulate the thickness of the comb. 2. No. 3. About a half inch.

Rev. M. Mahin—1. I have never used leveled-down combs, but I have in some cases used partly-filled sections. 2. I have not observed that honey stored in such combs was any more liable to granulate or to ferment than when only starters were used; but my experience is limited, and "I don't know." 3. If the comb is clean and white I would leave the cells full depth.

J. A. Green—I have not used leveled-down combs to any extent; but have experimented very fully with those left full depth, and have often experienced the defects mentioned, as well as some others. I do not believe it pays to use such combs, except perhaps two or three in each super at the beginning of the season to get the bees started.

Wm. McEvoy—1. My bees always filled and finisht the sections sooner when furnisht with leveled-down combs. But I always liked the flavor of the comb honey a little the best where the bees made the new combs and finisht them the same summer. 2. No, not if they have been cleaned out by the bees some time before using them. 3. About ¾ of an inch.

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By W. E Forest, M. D., 12th Edition, Revised, Illustrated, and Enlarged. This is the greatest and best work ever publisht as a HOME PHYSICIAN, and as

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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Nov. 8.—Fancy white 11 to 12c. No. 1, 10c.; fancy amber, 8 to 9c.; No. 1, 7.; fancy dark, 7 to 8c.; No 1 and mixed, 7c. Extracted, white, 5 to 6c.; amber, 4½ to 5c.; dark, 3½ to 4c. Beeswax, 26 to 27c.

All of these grades vary in quality and style of package, which makes it difficult to tell just what a certain colored honey will bring without knowing flavor and body thereof. Sales are of small amounts, and supply abundant. Beeswax is wanted at price quoted.

San Francisco, Calif., Oct. 27.—White comb, 1-lbs., 7½ to 9½c; amber, 4 to 6c. Extracted, white, 4¼ to 4¾c.; light amber, 3½ to 3¾c.; dark tule, 1¾ to 2¼c. Beeswax, fair to choice, 22 to 24c.

There is a tolerably firm market for choice to select water white, both comb and extracted, with not much of the same offering. In a small way on local account higher rates than are quotable are realized. Dark grades fail to receive any special attention, despite the fact that such are obtainable at low figures. There is no lack of demand for beeswax, and not much offering. At the same time, wholesale buyers refuse to operate at any advance on previous rates.

Philadelphia, Pa., Nov. 13.—Fancy white, 13 to 14c.; No. 1, 12c.; fancy amber, 10c.; No. 1, 9c.; No. 1 dark, 8c. Extracted, white, 5 to 5½c.; amber, 5c.; dark, 4 to 4½c. Beeswax, 27c.

Honey is arriving very freely; market is a little off. Beeswax is in good demand.

Buffalo, N. Y., Nov. 5.—Fancy white is moving briskly at 11c., stray sales at 12c., and good to choice stock mostly at 10c.; buckwheat and dark honey ranges from 8 to 6c., as to actual quality. The demand is excellent for all grades of honey. Extracted ranges from 6 to 4c., with moderate sales. Beeswax is very scarce, and strictly pure sells quickly at 27 to 28c.; adulterated, etc., proportionately lower.

Now is the time to market honey, rather than wait longer.

Albany, N. Y., Nov. 8.—Fancy white, 13c.; No. 1, 12 to 12½c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c; fancy dark, 8 to 8½c.; No. 1, 7½ to 8c. Extracted, white, 5 to 6c.; amber, 4½ to 5c.; dark, 4 to 4½c.

Our honey market is active and stock moving off rapidly at quotations. Fancy white comb is scarce.

St. Louis, Mo., Nov. 8.—Fancy white, 11 to 12c.; amber, 9 to 10c.; dark, 7 to 8c. Extracted, white, 5½ to 6c.; light amber, 4½ to 5c.; amber, 4 to 4½c. Beeswax, prime, 24 to 24½c.

Remand is rather light for this season of the year.

Boston, Mass., Nov 8.—Fancy white, in cartons, 13c.; No. 1, 11 to 12c.; fancy amber, 10c. Ex-tracted, white, 6 to 7c.; amber, 5 to 5½c. Beeswax, 28c.

No. 1 and fancy honey has sold well during the past 10 days, but off grades and light weight is going slowly. Beeswax is in good demand and but little here.

Kansas City, Mo., Nov. 8.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.; fancy amber, 10c. No. 1 9 to 10c.; fancy dark, 9c.; No. 1, 8. Extracted, white, 5½ to 6c.; amber, 5 to 5½c.; dark, 4 to 4½c. Beeswax, 22 to 25c.

Receipts of comb honey are large; extracted is light.

Minneapolis, Minn., N v. 8.—Fancy white, 10½ to 12c.; No 1, 9 to 10c.; fancy amber, 9 to 10c.; No. 1, 9c. Extracted, white, 5 to 6c.; amber, 4 to 5c.

Demand is good, prices are firm, and supply only moderate—best time so far this season to ship.

New York, N. Y., Nov. 8.—Fancy white, 12c.; No. 1, 10 to 11c; fancy amber, 9 to 9½c.; No. 1, 9c.; fancy dark, 8½c; No. 1, 8c. Extracted, white, 5 to 5½c.; amber, 4½ to 5c.; dark, 4c. Beeswax, 26 to 27c.

Our market does not show much activity and comb honey is moving off rather slowly. The receipts are large and the stock is accumulating. While choice grades of white are likely to find sale at present quotations, prices on off grades and buckwheat will have to be shaded in round lots. Southern in barrels is in good demand at 50c. a gallon, for average grade.

Cleveland, Ohio, Nov. 9.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c.; fancy dark, 7 to 8c. Extracted, white, 6½c.; amber, 5½ to 6c. Beeswax, 28c.

Milwaukee, Wis., Nov. 8.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 9 to 10c; No. 1, 8 to 9c. Extracted, white, 5½ to 6c.; amber, 4½ to 5½c.; dark, 4 to 4½c. Beeswax, 25 to 27c.

The market is in good condition. Receipts are liberal, demand fair, and values fairly sustained on finest grades of honey, both comb and extracted. We are looking for an increased consumption of honey this season, as the cost is not high, and is an unequalled substitute for butter to any or all who cannot afford to buy the best butter.

Detroit, Mich., Nov. 9.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c.; fancy dark, 7 to 8c. Extracted, white, 5 to 6c.; amber, 4 to 5c. Beeswax, 25 to 26c.

Indianapolis, Ind., Nov. 8.—Fancy white, 11 to 13c.; No 1, 9 to 10c.; fancy amber, 9 to 10c. Extracted, white, 5 to 6c. Beeswax, 25c.

Demand for fancy white comb honey and fancy white extracted is exceptionally good, while there is almost no demand for dark or amber comb or extracted honey.

Cincinnati, Ohio, Nov. 6.—Fancy white, 11 to 13c.; No. 1, 10 to 12c.; No. 1 amber, 8 to 10c.; No. 1 dark, 7 to 8c. Extracted, white, 5 to 6c.; amber, 4to 5c.; dark, 3½ to 4c. Beeswax, 22 to 25c.

Demand is slow for extracted and comb honey, with a good supply, while beeswax is in good demand, with a fair supply.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & CO., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN.
120 & 122 W. Broadway.

Kansas City, Mo.
C. C. CLEMOMS & CO., 423 Walnut St

Buffalo, N. Y.
BATTERSON & CO., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Cleveland, Ohio.
A. B. WILLIAMS & CO., 80 & 82 Broadway.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.
Mr. Selser handles no honey on commission

St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.
S. H. HALL & CO.

Milwaukee, Wis.
A. V. BISHOP & CO.

Boston, Mass.
BLAKE, SCOTT & LEE., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. MCCULLOCH & CO., 380 Broadway.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central Ave.

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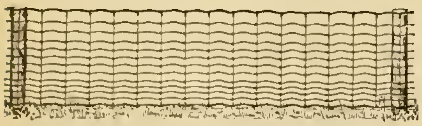

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The BEE-KEEPERS' REVIEW is $1.00 a year, but, for the sake of getting it into new hands, and being able to begin the year with a large list, I will, until Jan. 1st, send free to each new subscriber, a copy of "Advanced Bee-Culture," a 50-ct. book of nearly 100 pages, that gives briefly but clearly the best methods of management from the time the bees are put into the cellar in the fall until they are again ready for winter—32 chapters in all. Those who prefer can have, instead of the book, 12 back numbers of the REVIEW, the selection to be mine, but no two numbers alike. All who send $1.00 now will receive the last four issues of this year free, and the REVIEW will be sent to the end of 1898. If not acquainted with the REVIEW send 10 cents for three late but different issues.

W. Z. Hutchinson, Flint, Mich.

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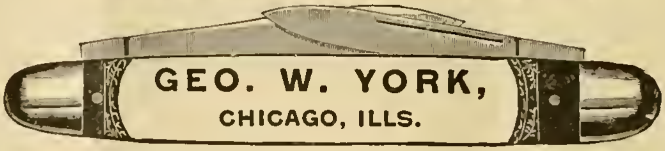

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The NOVELTY KNIFE is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed an AMERICAN BEE JOURNAL reminder, and on the other side, name and residence of the Subscriber.

The material entering into this celebrated knife is of the very best quality; the blades are handforged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring-steel, and the finish of handle as described above. It will last a lifetime, with proper usage.

Why purchase the Novelty Knife? In case a good knife is lost, the chances are, the owner will never recover it; but if the Novelty is lost, having name and address of owner, the finder will return it; otherwise to try to destroy the name and address, would destroy the knife. If traveling, and you meet with a serious accident, and are so fortunate as to have one of the Novelties, your pocket KNIFE will serve as as an identifier; and in case of death, your relatives will at once be apprised of the accident.

How appropriate this knife is for a Christmas, New Year or birthday present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, a lady to a gentleman, or vice versa, a son to a mother, a husband to a wife, a brother to a sister or a gentleman to a lady—the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

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37th Year. CHICAGO, ILL., NOVEMBER 25, 1897. No. 47.

CONVENTION PROCEEDINGS

Report of Southwestern Wisconsin Convention.

BY F. L. MURRAY.

The Southwestern Wisconsin Bee-Keepers' Association held its annual convention at Boscobel, Oct. 6 and 7, 1897. There was a large attendance of wide-awake, practical bee-keepers. The convention was called to order by Pres. N. E. France, who delivered an address, after which the question-box was opened.

CAN WISCONSIN HONEY HOLD ITS OWN?

QUES.—Can our honey hold its own with any other in the United States?

Mr. France—Our honey does not have to go begging in any market, either for flavor or color, and southwestern Wisconsin produces the finest honey in the world.

QUES.—Is there any difference between white and Alsike clover honey?

Mr. France—Not much, but if any preference it is for Alsike.

Mr. Rice said his bees workt better on Alsike than on white clover.

QUES.—Does the color of comb, dark or light, make any difference in the quality of honey?

Mr. Nice—No, I think not. I take just as white honey from old as from new comb.

Mr. Wilson thought the time of putting on extracting supers makes the difference.

Mrs. Pickard said the color of comb makes no difference.

Mr. Evans—My bees will store honey in drawn comb from last year in preference to putting it into the brood-chamber.

STARTING FOLKS INTO BEE-KEEPING.

QUES.—Shall we encourage our neighbors to keep bees?

Mr. Wilson—I think not.

Mr. Nice—Suppose a party buys from anybody, regardless of price or quality, and then have foul brood, is it not a detriment?

Mr. Evans—On account of poor price of honey I say no. I think it was seven years ago I started a young man into the bee-business, and two years after he bought 200 colonies, came within ¼ mile of me, started into the bee-business, and sold honey for about one-half price.

Mr. Rice—I think a man adapted for the business is the one to keep bees, and he only. A person that does not take care of his bees, and knows not how to market the honey, is a detriment to bee-culture.

Home Apiary of Mr. John Trimberger, of Clark county, Wis.

Mr. Wilson—There is a class of bee-keepers around me who are retailing extracted honey for 5 cents per pound.

Mr. Arms—There is just as much damage done by large bee-keepers as by small ones, by overrating their honey crop too early in the season, and selling too cheap to get rid of it. The majority of our members think it is not advisable to encourage our neighbors to keep bees.

QUEENS AND FOUL BROOD.

QUES.—If there are 15 or more queen-cells in a colony, are they all equally good?

Mr. Evans thinks the ones that are sealed over first are the best.

Mr. Nice—I think they are all equally good.

Mr. France—On buying queens, be sure there is no foul brood near where they came from. I have found several cases the past summer where foul brood originated by buying queens.

Mr. Green—Is foul brood increasing or diminishing in the State?

Mr. France—If careful from now on I think we are in a fair way of getting it stampt out. I have found out this season that several cases of foul brood started by foulness of hives and combs.

AGE OF COMBS.

Some thought the comb was torn down and rebuilt when the cells became too full of cocoons, and rebuilt by the bees. Others said they had combs that had been in use for 20 years without any change.

QUES.—In a season of good honey-flow which colony will do the best for comb honey, the one hived on drawn comb or the one on full sheets of foundation?

The general opinion was that they did the best on full sheets of foundation.

QUES.—What is the outlook for bee-keeping as a business through this section of the country for the future?

Mr. Rice—Our outlook for a clover flow was never better.

Mr. Wilson—The outlook for basswood is not as good, as the trees are getting mostly cut for lumber.

Mr. Pickard—In our locality the basswood honey crop is a matter of time, and not very long time, either, as it is getting mostly cut off for lumber.

The majority of the members thought the outlook for the future is not as good as formerly.

QUES.—What is the trouble when the brood dries up before the time for it to hatch?

Mr. France—It is most likely pickled brood, and is caused by certain conditions of the weather.

QUES.—How large a honey-house is needed for from 100 to 150 colonies, run for extracted honey?

Mr. Wilson—12x16 feet.

Mr. Evans—16x20 feet, for comb honey.

Mr. Nice—16x24 feet.

Mrs. Pickard—12x36 feet.

QUES.—How much honey will a good, strong colony of bees produce per year with favorable circumstances?

Mr. France—By an experiment made in this State several years ago, for a period of 10 years, it was found an average of 90 pounds was produced of extracted honey.

QUES.—Is honey as well flavored before it is sealed as after?

Mr. Rice—If we want prime honey we must have it sealed over before extracted.

Mr. Van Allen—I use a large tank when extracting, and by leaving the honey there for some time, and then drawing off from the bottom, the honey is all right, if not all sealed before extracting.

Mrs. Pickard—By waiting until the honey is one-half sealed over there is no danger in barreling it up as soon as extracted.

Mr. France—If honey is extracted when the weather is too hot, in the middle of the day, it may sour.

Mr. H. Lathrop read the following essay, entitled,

Marketing the Honey Crop.

Heretofore the greater effort has been put forth in trying to devise methods by which to increase the yield of honey and we have been trying through conventions and bee-papers to educate as many people as possible in the art of increase production, and all have bent their energies in that direction, giving little heed to the question of *selling* the product for a fair, living price. I am askt to write on marketing the honey crop. How can I write about marketing when there is no such thing—a market for honey?

For almost every thing else that farmers produce there is an establisht market, and you can deliver your produce any day, be it grain or live stock, and get the market price thereof in cash. Can you do the same with honey? Not under the present arrangement. The only thing you can do is to find out who wants honey, and when they want it, and get all you can, and what you get will be less than what you got last year—at least so it has been going for the past 25 years.

Two or three years ago we used to look across the continent with a feeling of pity for the Californians, because they had to sell for ten cents; we thought it a very low price—we were getting then about 14 cents for fancy comb honey in lots. How is it now? I think some of our bee-keepers know what it is to sell their best white comb honey for 10 cents, and the Califorians are getting 7 and 8 cents. Why should this be, when everything else is advancing? Because production is growing faster than demand.

I might paint this question in glowing colors, but what we want is the truth. What price does extracted in large lots command to-day? I doubt if it can be sold for any thing like former prices, except in limited quantities.

Last year a plan was proposed in this convention whereby an agent appointed by the Association was to sell the product of the members by samples to be be sent to him by each member. I remember that I timidly suggested that the honey should all be sent to a central warehouse, and there properly graded, packt and labeled before selling; each member to receive credit for honey contributed, and returns be made to members pro rata as sales were made. My plan did not meet with any favor, but I am here to assert more boldly than ever my belief that it is the only plan that will work.

I want to ask, how much honey has been sold by the appointed agent? How many members sent samples to Mr. France, as they agreed to do? Well, here we are; if you know where that honey market is where we can get a uniform and fair price, we would like to know the place. My plan is to sell whenever I can, wherever I can, large lots or small, and for the best price I can get.

Commission men have helpt me and have always dealt fairly with me, but I never ship to any but good, straight men. We have been advised over and over again to sell in our home market. If I had done that this year I would not have received even a California price. Small bee-keepers who produced a small amount of honey ruined the home market by selling for less than the honey was worth. Where did I sell? I will tell you where my market is; it is where I can do the best—sometimes one place, and sometimes another.

It is not so much a question of low prices in the future, but a question whether we can sell at all or not. Much depends upon the cultivation of the sweet tooth in the "genus homo."

H. LATHROP.

EVENING SESSION.

First were songs and music by Pres. France and resident ladies, after which Mr. France read the following:

Observations through the State.

If you and I were to travel together, not likely we would notice the same objects. So in my travels the past summer, of over 3,800 miles in Wisconsin, I will briefly call attention to some things that impress me as a bee-keeper.

The careful and generally the most successful bee-keepers were early examining their bees, and if anything was needed it was soon furnisht. Not so, as a rule, where I found weak colonies, with little honey, and more or less chilled or starved brood. The season is past and the first-named class in general have been sweetly paid. Again, have all supplies on hand before busy season.

As to foul brood, I have seen whole apiaries of empty hives piled in a yard, bees all dead. Also diseased hives containing all the old combs, unprotected, bees working on them from the surrounding country; diseased combs thrown in a pile out of doors, also refuse from solar extractors; loaning old hives and combs; even to the selling whole diseased apiaries, and honey from diseased hives. I have also, this fall, seen bee-yards of many colonies, that last spring were so bad as to smell many yards away, but by very carefully following my directions they are now free from the dreaded disease.

So few bee-keepers take a bee-paper (1 out of 16) that I was a stranger to nearly all I met, who had queer notions. All kinds of receptions and accommodations, some very pleasant and others not.

FALSE REPORTS.—So often has some bee-keeper told me that his bees were all right, so far as foul brood was concerned, but his neighbor's bees were very badly diseased. Upon a little questioning I found he was envious, and lackt a true brotherly love. This has caused me many long and unpleasant trips, and only to hear the second bee-keeper likely complain of this other one's bees being diseased, even asking me to burn all his hives, bees, and appliances. If one thing over all others has imprest me, it is that we Wisconsin bee-keepers do not read bee-papers enough, and lack honest brotherly love for our Wisconsin brethren.

What would you think of a bee-keeper contracting nice white comb honey of this season's gathering, and shipping instead nice honey in front sections, and last season's candied and leaking buckwheat honey in the rear of the same cases? Or, of commission dealers holding your honey for 18 months, making you no returns or even writing to you, with good cash honey-buyers in their next block? or such dealers selling the honey and keeping all returns as their commission? On the other hand, some who sent samples, with cash prices, and sell honest goods of good quality, cannot procure enough honey to supply their increasing demands? To secure you against dangers of loss in sales to strangers, there are various ways.

I saw a nice model apiary of something over 100 colonies last spring, that its owner had managed with profit for years alone, but was suddenly taken sick and died, and the property had to be sold at a great loss, as no one of the family knew how to care for the bees. I found the family a customer, but the thought came to me then and often since, how many other bee-keeper's families, also, are not experienced, so in case of similar misfortune their property must be sold at a great loss? Can't we this winter, around our hearthstones, begin a series of study and counsel lessons, and when next season comes, have the experience and mutual help? If one man is dropt from our great enterprises, the business does not stop; and if our business as a bee-keeper has been with pleasure and profit, why not the whole family learn it?

A bee-keeper I met owning 420 colonies, producing comb honey, had a long, light spring wagon with enclosed wagon-box, open on top, much like a fish-pedler's wagon, which had a partition lengthwise the box, so that on each side his frames hung as in the hives. In this wagon he carried all his combs and sections to out-apiaries in the spring and back in the fall. He also had an account book in which were all honey sales, except the home market, and a list of honey-dealers. If any one proved a good customer that name was put in one list; if too slow in payments, or otherwise not satisfactory, that name was put in another list. A good plan. Try it.

An aged happy couple, of about 80 years, in Waupaca county, handled 40 colonies of bees alone, all for comb honey.

A section of a mower-sickle with handle riveted on in the middle, makes a good scraper. An iron, like a large old file, bent one inch at the end at right angle, and ground nearly to a sharp edge, is a good scraper in a hive and to lift combs out of the hive while handling.

In Washington and Dodge counties many farmers of large fields were mowing and saving white clover seed. They claimed it was more profitable than other clover seed raisings.

One man used queen-excluding zinc in half his apiary, and run all for extracted honey. He weighed the honey of the two lots separately, and claimed favor for the zinc.

One man bought of all his grocery dealers, all the empty maple-sugar cans cheap, cleaned them, and filled with nice white honey, which found ready sale.

I found smokers and fuel of all kinds, from the latest improved down to an old iron kettle with a hole in the bottom, that had leakt out fire and burned up some hives and bees. But I wish to caution you: Be careful what you burn, and do not use too much of any kind of smoke as it will flavor the honey.

I met some bee-men owning large apiaries, who did not read any of our valuable bee-papers, selling 4,000 pounds of nice section honey to the stores at 8 cents per pound, and taking pay in groceries.

N. E. France.

Next was a discussion on sweet clover. Some said it was good for both pasture and hay, and others that they had never been able to get stock to eat it at all.

As to barrels for honey, Mr. France and Mr. Nice use nothing but oak barrels, with iron hoops.

Mrs. Pickard, Mr. Van Allen, and Mr. Wilson use basswood barrels with wooden hoops. Some soak the barrels before using; others do not. The size of barrel that gave best satisfaction was one that held 360 pounds.

MORNING SESSION, Oct. 7.

First was an essay by Mr. Evans, on

The Production of Comb Honey.

I have been a producer of comb honey for the past 17 years, and as I present this subject I feel that I cannot lay down any hard and fast rules for the business. The difference in temperament and tastes of bee-keepers, make it impossible to have uniformity of method to any great extent.

I believe I owe my success as a honey-producer largely to the study of bee-literature, always experimenting as I read, putting into practice any theory which I think is good, discarding those which prove of little value to me, and adopting the ones that work well. As I bring the plans of others into use I usually find that improvements and plans of my own originate. Of course I get to think very much of these children of my own brain, and sometimes call for governmental protection for such a one.

I would advise those who are interested in bee-culture, as any other business, to accumulate all the information they can on the subject in hand, and then modify it to fit existing conditions.

Now in as few words as possible I will give an outline of the plan I use. There is nothing very new about it, but if any of you feel that I have not toucht upon, or have past too quickly over some points, the extension of which would be a benefit to you, you are welcome to question me at any time.

About the 10th or 15th of April I have my bees carried out of the cellar and placed carefully upon the summer stand. Just before leaving the cellar the bottom-boards are turned over, for they have been inverted during the stay in the bee-house. This plan has become an establisht rule with me, as it is the quickest and easiest way to clean house in the spring, and prevents smothering of bees during their long confinement.

I handle bees as little as possible after taking them from the cellar. As they are placed, the light ones are markt, and then feeding begins. They usually gather a little honey and pollen soon from the forest trees and spring flowers, then comes fruit-bloom, at which time I equalize the colonies and get in good working order for white clover and basswood. If by reason of cold weather the bloom is late, and the bees are taking on the swarming fever, I give them more room by placing an extracting case on top of the hive over a queen-excluding honey-board. (I have tried giving room at bottom of the hive, and do not like it). The extracting case on top I find works nicely, for several reasons, viz: It prevents swarming. It is better to put on than a case of sections, as the bees are very likely to deposit pollen there at a time when honey is coming in slowly. This is a great damage to section honey, as it can not be kept long and is unsalable. Of course the honey may be extracted, but the comb is valueless for future honey-storing.

I use the Heddon hive, and my extracting-super is simply one section of a hive, so you see this arrangement gives me a chance to build up a weak colony, or to put swarms into hives with combs well started, as I of course remove this super and put on a section-case as soon as the honey-flow begins.

My supers are made to contan 28 one-pound sections, 7 to the foot, which are held in place by tin and wood supporters, the wood coming up flush with the top of the sections. I do not use separators. I use the best section I can get filled with drawn combs which I find is best when leveled down to ½ inch.

The honey will sour in deep cells before it can ripen, if the weather happens to be damp for a period of several weeks, as it was in my locality this year.

I have not found it desirable to use drawn comb and full sheets of foundation in the same super, as the bees will fill and complete the sections containing comb before commencing work on the foundation.

In my locality it is best to take off honey at the close of the basswood harvest.

I then pack all well-filled sections in neat shipping-cases holding 15 sections, with a paper box in the bottom to prevent leakage. I extract the honey from the unfinisht sections, placing the combs thus obtained back into empty supers for next year's crop, while the honey a little later on is bottled in 2-pound jars, and disposed of in the home market.

Thos. Evans.

Ques.—Is it advisable to place the hives on the same stands as they were taken from the fall before, when taking out of the cellar?

Mr. Dexter—There is a great loss of bees if they are not put in the same place they were in the fall. I use a plan of my bee-yard on paper, and put all the hives back on the old stands.

Mr. Rice—I had the worst case of robbing I ever had by not putting bees where they came from the fall before.

Mr. Ricks—I had a bad case of robbing by the same cause.

Mr. Evans—It makes very little difference, as there are very few bees in the hive in the spring, that went into winter quarters.

Mr. Nice—I think it makes very little difference where they are put.

Mr. France—A great many bees live over winter.

Ques.—What strain of bees is best for comb honey?

Mr. Evans—The black bees produce the whitest honey, and of course the most marketable.

Ques.—What age do the worker-bees attain?

Mr. France—I have experimented a good deal on this, and found at the end of 90 days over half the bees that were in the hive at the beginning of that period were still there.

Mr. Ricks—I have put bees into the cellar that I knew were queenless, and came out in the spring about as strong as when put away in the fall.

Mrs. Pickard—I have had a colony that I knew was queenless for a long time, that reared a queen.

Mr. Dexter—If they will steal honey, why not steal eggs?

Mr. Nice—I have had cases where a colony would remove eggs from one side of the hive to the other.

Mr. Pickard—Is it possible for bees to carry eggs from one part of a hive to another?

Mr. France—Yes, it is.

Mr. Evans thinks there is great danger of having comb honey sour when the cells are too deep.

The election of officers resulted as follows:

President—N. E. France, of Platteville; Vice-President—Thos. Evans; Secretary—F. L. Murray, of Calamine; and Treasurer, D. Ricks.

Mr. J. W. Van Allen read the following essay, on

How to Succeed at Bee-Keeping.

We as bee-keepers are all interested in the topic assigned me. Success is what we are all striving for—no difference what our vocation is, we wish to succeed, and especially to meet with financial success. What haven't men done? What won't they do to win it? When men will stake the comforts of home, and life itself, and leave friends and relatives and brave the cold of the arctic regions and the privations attendant to gain the coveted prize, it would seem that to succeed financially is the main object in life.

How to succeed in bee-keeping has been one of the knotty problems that has confronted the bee-keepers of this country during the last few years of partial failure and falling prices of honey, and the fradulent dealings of crooked commission men of our large cities. Of course all commission men are not rascals, but judging from the experience of many bee-keepers, and other shippers of produce, many of them will "bleed" you for all you are worth, or, in other words, take the "lion's share."

But to my subject: In order to attain the greatest success at bee-keeping, one must, to begin with, have a real love for it. Of course, some may meet with financial success who have no real liking for the business, their only object being the dollars and cents they can get out of it, but they work at a great disadvantage, and sooner or later they get out of the business.

But it is not so with the man or woman who has a real love for the business; they go about their work with pleasure, They admire their bees, and it is their delight to be among them, and they are never happier than when they see them taking their first flights in spring, especially so if they have wintered well.

The last few seasons of partial failure has caused many to consider the feasibility of combining some other business with that of bee-keeping to help swell the profits or tide them over in case of failure, and at the same time not interfere with the bee-business from past experience, and after careful consideration I have come to the conclusion there is nothing equal to the small fruit business, or the raising of poultry, especially the former where one has a favorable location, and near good markets, or one has good shipping facilities so they can reach distant markets.

Any one with a good location and a liking for either of the above combinations, and fair business ability, is sure of a good degree of success.

I wish to say a few words to those who may contemplate entering the arena of bee-keeping, and wish to know the shortest and safest road to success for the beginner. He should take a course of training, of at least one year, with a bee-master—not simply a bee keeper but a *bee-master*—one who understands his business, and is successful in the management of it.

If I were young again, and going into the bee-business, I would take such a course of instruction if I had to work for my board and the privilege of learning the business.

J. W. Van Allen.

Ques.—Will bees do better in the shade during the honey harvest than in the sun?

Mr. Evans—I prefer shade. I use shade-boards, and prefer them to trees.

The majority of the members did not like shade. Color of hives has a great deal to do with heat in the hives.

Ques.—What is the better, a pen-knife or scissors to clip queen's wings?

By a vote the majority preferred scissors.

Ques.—Is there any way to prevent robbing at the time of putting bees out in spring?

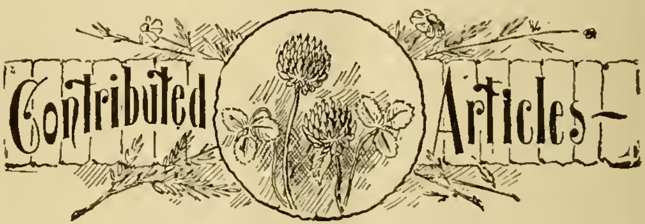
Mr. Evans—Keep the entrance closed, if the colony is weak. If a colony gets partly robbed out, they are never any good the balance of the season.

Mr. France—I use asparagus tops at the entrance, thoroughly wet with water.

Ques.—What is the best smoker fuel?

Some said straw, others planer shavings, punk, crusht corncobs, or dry hardwood.

F. L. Murray, *Sec.*



Contributed Articles

Advice About Weak Colonies for Winter.

BY C. P. DADANT.

Question.—"I wish to ask for a little advice. I have 200 colonies of bees, and the honey-flow failed about the first of October on account of drouth. I have just been looking into my hives (Nov. 8), and I find not enough bees to cover two or three combs with no brood, either sealed or unsealed. But all have plenty of stores. What can I do to save those bees? If I unite them will the bees not be too old to stand the winter? How can I stimulate brood-rearing at this time of the year?—T. McD., Gallatin Co., Ill."

Answer.—It is rather late to give feed to bees to incite breeding, yet an attempt of this kind cannot be injurious, even if it is not successful. It is well known to bee-keepers that bees will breed most when there is a flow of honey, especially if the flow is not strong enough to cause them to fill the brood-cells. The queen has to eat a great deal in order to lay eggs in such large quantities as she usually lays, and her appetite is excited by food being constantly offered to her by the workers that go about with a full honey-sac. If we can produce these circumstances artificially, we can undoubtedly incite her to lay eggs, altho at this season we encounter the resistance of their natural habits which are opposed to the object in view.

By feeding warm honey, slightly thinned with water, in small quantities, but at often repeated intervals, we will create more or less excitement in the hive, the queen will be offered food oftener, and the result will certainly be an increase in the laying of eggs. Whether this laying can be induced in a sufficient amount to supply a force of bees adequate to the requirements is a question that can only be solved by the actual experiment, but if we were to try to breed up as desired we should feed each colony, say a couple tablespoonfuls each evening for a week or two, and we should take pains to scatter this food about the combs to give them as much labor as possible in gathering it up. We would feed in the evening, and not at any other time for fear of robbing. The excitement caused by this would subside by morning. If it was found that the quantity fed caused too much of an increase in the stores, we would reduce it according to the circumstances.

When we feed bees for a winter supply in seasons when they are short, we take especial pains to feed as quickly as possible in as large quantities as practicable, because we wish to shorten the period of excitement; but in this case it is necessary to lengthen it as much as convenient, since we seek production of bees and not supplies. In hives that were too plentifully supplied with stores, and had too few bees to winter, we have often seen the practice of slightly cutting into the sealed combs at the back and as near the bottom of the frames as possible. The honey thus exposed acts in a similar way to the feeding which we recommended above. It causes the bees to transport it in order to repair the comb, and creates an excitement which will lead to breeding. If the questioner tries this method we would like to know his experience at the end of the season.

We advise the use of warm, thin food because it thus more nearly resembles a spring harvest, and also because watery honey is best for larva food; but such food, if given in unnecessary quantities, would prove injurious as it might be stored for winter.

If the colonies are exceedingly weak, and the winter near at hand, with stormy days and cold nights, it would be of no use to try this method, which can be successful at best only when there is a chance for the bees to take flight during the day. On the other hand, as pollen is needed, if there is none in the hives, the experiment would be sure to prove a failure, for there are no blossoms at this season, and we doubt whether the bees could be induced to take artificial pollen in the shape of flour or meal.

In such a case, nothing is left to be done but uniting several of the colonies into one. This requires a great deal of care, and is not always successful, and rather than attempt it on a large scale we would risk wintering all those colonies that were worth it by placing them in the cellar at the opening of the coldest weather. When cellar-wintering is carried on in favorable circumstances a smaller colony may be wintered in this way than out-of-doors.

It has been a question with many bee-keepers whether a hive containing no young bees could winter as well as one containing both young and old bees, and from discussions on this subject the fact has been elicited that the old bees would winter fully as well as the young, but that they were not so well fitted to rear brood as the young bees were. It appears that the glands, which help them in the process of making the larval food or jelly, become atrophied or shrunken with age, so as to render them unable to produce it.

But it is not astonishing that bee-keepers generally should have become distrustful of colonies containing only old bees for winter, for the appearances are against them. Taking two colonies of apparently equal strength, the one with brood the other with none, the conditions are evidently not equal, as the one has an advantage in the expected increase which places it in much more satisfactory circumstances than the other. But at this season of the year there is but little brood in the hive. And, to speak plainly, in our opinion, it is a mistake to mistrust hives that have only old bees, if conditions are otherwise satisfactory. Aside from the fact that they are less able to take care of the brood, they are otherwise fitted to go through winter fully as well as the young bees. Their bowels do not so readily become distended with discharges as those of the young bees, for they eat less. In transporting bees long distances while importing them from Italy, years ago, we ascertained beyond a doubt that the old bees could stand the trip better than the young, and we ascribe it to the reason above given.

Hamilton, Ill.

Description of a Fly Bee-Fighter, Etc.

BY S. T. PETTIT.

Thinking some might care to know more about that interesting insect I sent to the Buffalo meeting, I will give the following:

I was passing through my bee-yard, and upon a bee-quilt lying in the sun, down side up, I noticed what I took to be a bumble-bee. On other parts of the quilt or cloth were a few honey-bees collecting propolis, or had been just a few minutes before, but I am not sure that any were present just then. I was amused at the sight of a bumble-bee, as I supposed, gathering propolis, but I noticed his long wings and little abdomen. Then I lookt closer and saw in the grasp of his long, powerful legs a poor, helpless honey-bee, with its powerful enemy apparently tasting the back of its neck. I took in the whole situation in a moment, and with a quick, sure grab I seized him by those dark, long wings. He releast the bee at once, but it was dead. Then he struggled hard for liberty, and his strength was a matter of surprise.

Upon close inspection it proved to be a fly, and not a bumble-bee at all; but his mossy back, color and general appearance would deceive many. I placed his stinger end against the back of my hand to test his powers to sting, but he made no pretenses whatever at stinging. Then I put him into a wire-cloth cage and ran a bright Italian bee into the cage with him, and watcht for results. They seemed to be mutually afraid of each other, but they soon came in contact and clincht; the fly wrapt his long, strong legs around the bee and seemed to hug the bee pretty hard; but they were undersides together. A heavy buzz from the fly and a quick loosening of his grasp told me the tale, that he was stung, and they parted. The fly showed slight lameness, but did not appear to suffer much pain. But soon they again met, and hurried through a similar process. When they parted a second time the fly indicated increast pain and more lameness, but at the third clinch and struggle the bee came off conqueror; the fly soon became badly disabled, and could only drag himself along.

Then I let the bee out to go home and tell of the thrilling events, dangers, battles and victory through which it had just past. Every time they would meet they clincht; they made no effort to evade each other, and the bee would cutely and quickly, every time, get its underside to the fly. The question arises: Would not these creatures recover from the effect of one bee-sting?

If we should have another hot wave sufficient to send more of these unwelcome visitors away up North, I shall take pleasure in experimenting with them. I believe if I had cut the sting off of that bee, the fly would have sucked and hugged the life out of it right before my eyes.

A POOR COMB HONEY COLONY MAY DO WELL ON EXTRACTED.

As a rule about 4 per cent., or one colony of bees in 25, will usually fail to do satisfactory work at comb honey, either in quality or quantity. I have come to this conclusion, that it does not pay to waste their time on comb honey. I just blow a little smoke in at the top and let part of the bees run down; then set the comb honey super in the shade a few moments, that the bees may fill themselves, then place it, bees and all, on some other hive, and give the idlers extracting supers with drawn comb, and more likely than not the former idlers will be transformed into bees as good as the best in the apiary for extracting honey. I have practiced this for years with the very best results in every case.

The past season I treated one colony as above, and in eight days the super put on empty and dry contained 88 pounds of good honey. But very likely some of that came from the brood-chamber. And this splendid work continued as long as the honey season held out.

Ontario, Canada.

Combs with Candied Honey—How to Save Both.

BY M. M. BALDRIDGE.

On page 647, a correspondent desires to know what to do with combs filled with candied honey; and one of the answers is, that it might perhaps be a good plan to sprinkle the combs with water before giving the bees access to them.

Now my plan has been for several years past to uncap such combs and extract any liquid honey there might be in them, and then fill the empty cells full or part full of water. Of course, I also wet or sprinkle both honey and comb in so doing. I then hang these frames of comb in the hive, either in the story where the bees are, or in an empty story underneath, and late in the afternoon. The honey will then be quickly removed, and will be found nicely liquified, and with no loss of comb or honey whatever.

As a rule, I find it necessary to water the combs as stated, two or more times before the last grain of honey is liquefied. In this way I have saved many choice combs filled with candied honey, and with no loss whatever. Try this plan and you will be pleased with the result. I know it is a success, for I have been "through the mill" a number of times.

Kane Co., Ill.

Somewhat Disheartened—Managing Swarms.

BY J. S. HARTZELL.

The honey season of 1897 is closed, and the consumption of the crop collected is next in order. With the closing of this season, and in my experience (after seven years' trial) I have concluded for this section of the country especially there is nothing to be made in keeping bees. Much has been, and will continue to be, written upon the results attainable by proper care and management of an apiary, setting forth most particularly the hopeful side of making it a substantial and profitable pursuit, but as seen by me, after seven years' experience, I can truthfully say as a pursuit or calling by which to obtain remuneration for time and labor expended, I could not conscienciously recommend any one to undertake it, especially in this locality. I have concluded, too, that much has been written upon the care and management of bees that is more theory than practical, and has led me to conclude that one-half that even the wisest man knows is mere theory. This is, in my judgment, thrice applicable in bee-culture, unless conditions are very much different in other sections of country from that experienced here.

Bees swarm. Yes, and I presume the conditions coincident thereto are of much the same character throughout the country, and with the various plans of non-swarming hives, caging of queens, etc., I have learned of but one that appeared and proved practical in results, and that is the one recommended and practiced by J. A. Golden, of Ohio, as set forth in an article publisht in our esteemed Bee Journal, in 1896. Certainly, Mr. Golden knew whereof he spoke, and the only really bad thing I can see in this plan is, the slice to be cut for the manufacturer of hives would be left comparatively on the loaf when once a man had obtained the number of colonies wanted.

I tested six colonies the past season on Mr. Golden's plan, and it proved an entire success. However, I had some trouble with the first two colonies casting swarms. After the fifth day arrived, and on which the queen was to be liberated, I made a failure in getting all the queen-cells cut out, as he recommended, and as result a swarm issued the second day after liberating the queen. Three others swarmed, and I resolved to be more careful, and with care came success. One colony did swarm, and from it I received the poorest result in securing honey, however it did better than others kept in the regular or orthodox way.

The results on the Golden plan are as follows: The best colony yielded 64 completed sections of honey, and the poorest 38. My yard contained 56 colonies, spring count, and I increast to 68. Had the 56 colonies, spring count, yielded proportionally to the result obtained from the poorest colony on the Golden plan, my crop would have been 2,028 completed sections of honey, whereas I obtained only 1,184, all told.

Honey obtained in this locality the past season is of poor quality, and sold at a very low price, viz: 10 cents per pound, f. o. b. cars. But from the market reports appearing in the bee-papers I conclude that the price is fair. But at the prices honey is, and has been, selling at for the past several years, I for one have concluded that keeping bees for profit does not pay for time and labor expended, and therefore I purpose, if possible, to dispose of my bees and quit the business. It took me four years—bad ones, too—all in succession to make up my mind, but learning that all depends upon conditions to insure a crop of honey, even with an abundant supply of nectar-producing flowers, all rests at last on conditions. I have at last become discouraged, and conclude that for time and labor expended, and crops of honey secured, I should have had at least 30 to 50 cents per pound.

In conclusion, allow me to say I prize and esteem the Bee Journal for its manly bearing, condemning the wrong, upholding the right, honoring the deserving, setting at naught and warning the unsuspecting against the rogue. May its editor prosper in his endeavors to uphold the good and deserving, and may the Bee Journal ever hold its place as at present conceded to it—one of the very best in bee-literature, and indispensable to the bee-fraternity.

Should I be compelled to be in bee-culture another season, all colonies will be workt on the Golden plan, and a report made at the close of the season.

Somerset Co., Pa., Oct. 30.

Methods of Producing Comb Honey.

BY J. A. GOLDEN.

It costs no more to be a successful apiarist than to be an unsuccessful one; nor to produce a No. 1 article of merchantable honey, than it does an unsightly product, which somehow finds its way into the markets of to-day. In the one case there is pleasure to one's self, and to his patrons; in the other there is disappointment, and results which show that labor, money and time have been spent in vain. No one can overestimate the pleasure of a thoroughly well regulated apiary, or measure the disappointment of a haphazard system in apiculture when it is considered that the one is just as easily produced as the other. The questions are, then, How can this be done? and by what method, or methods?

The questions may be answered thus: First, a proper knowledge of the honey-bee, its habits, needs, and instinct, are all essential. Second, properly constructed appliances, and how and when to use them to the best advantage to succeed. Then it can be truthfully said that success in apiculture means simply care, judgment and knowledge in manipulation.

As apicultural appliances can now be said to be very nearly perfect in construction, competition has accomplisht wonders for the apiarist of to-day, and he or she can obtain for their work the various appliances at low prices. Surely, it can truthfully be said that apiculture is not only progressive, but is a science of a high order as well.

There being several methods practiced in the production of comb honey by which success has resulted, I will give only the results of my method, and the non-swarming method, referring the reader to pages 481 and 833 of the Bee Journal for 1896, which fully explains "Golden's method."

Thus approximating the methods mentioned, I invite the reader to examine my report of the two systems practiced the past season (1897), and note the difference in results.

And before giving the report, I wish to say that my method positively requires bees to swarm naturally in order to succeed. Second, all queen-cells must be destroyed if a queen is to be returned. Third, plenty of surplus room must be provided, and the prize is sure. Having done all I could, I succeeded in getting only five swarms from my non-swarmers. They just wouldn't swarm. But I rejoice to know that every colony in my apiary for 1898 will be governed by queens of mixt blood—Italian and gray Carniolan—and if nectar flows in 1898, I will "get there, and don't you forget it."

However, it must be remembered that the locality in which I live is perhaps the poorest bee-pasturage section in all southeastern Ohio, from what I can ascertain, when I view it outside of two principal sources—that of white clover and sumac. True, we have other sources, from which a meager supply of nectar is obtained—common throughout the State. While I have tried to encourage the raising of Alsike and crimson clovers, for the past two years, I have known but one field of three acres of Alsike clover to be grown, and that was 1⅓ miles from my apiary, and one field of four acres of crimson, which was 4 miles distant. Buckwheat is seldom ever raised in this locality of late years, and when arguing with the farmers on the utility of raising the above grasses—Alsike and crimson clovers—the final answer is, "Oh, yes, Mr. G., you want pasturage for your bees." So when considering my report, remember that I am not situated amongst groves of orange and basswood. Here is my report:

Colonies manipulated on the Golden method, average per colony, 119¾ one-pound sections of honey; colonies on the non-swarming method, average per colony, 55⅓ one-pound sections. All is first-class white honey, and will be sold in my home market at 15 cents per section.

No account has been taken of unfinisht sections in either method, and at this date (Oct. 18) all colonies are in prime condition, both in health and stores, and their keeper rejoices from the fact that after all his reverses and misfortunes in the past two years, his bees have made him more than is required to pay every dollar of indebtedness, which will be cancelled in the near future.

Comments on my report will be cheerfully read by the writer.

Morgan Co., Ohio.

Transferring Bees—Some Information Wanted.

BY GEO. H. STIPP.

TRANSFERRING.—A fellow can't find out things without asking questions, nor tell other people how much he *don't* know, without saying something. Therefore, even at the risk of becoming a nuisance, I must indulge in a few more interrogation points.

Some months ago a writer in the Bee Journal suggested that an excellent plan to transfer bees from an old to a new hive was to put the old hive atop the new one. The bees would gradually fill the up-stairs with honey and go down-stairs to keep house and "tend the babies." As I had a hive filled with crooked comb, and which I was anxious to transfer, I thought this a splendid chance to experiment. I followed directions carefully, and the bees soon got to traveling through the new hive in a self-satisfied and encouraging manner, but week after week rolled by and there was no change in the situation; honey and brood kept close company up in the attic, and never a sign of business down below.

I then concluded that the perverseness probably lay in the queen, so I placed a zinc honey-board between the two hives and put the "old lady" down below, thinking the other members of the family would come down and build her some comb. Weeks rolled by as before, and still the first floor was "to let," the brood all hatcht, and the queen simply mourned down-stairs for her lost throne, and refused to be comforted.

In disgust I concluded it was time to do something, so I drove the bees down-stairs out of the old hive, cut out and gave them some of the honey, destroyed the old queen (which I had longed to be rid of), introduced an Italian queen, and at last accounts the full sheets of foundation with which the new hive had been supplied were fast being drawn out, the new queen was rearing a family, and prosperity promist to reign in the realm.

Now what I want to ask is, What kind of experience have other folks had in this plan of transferring?

QUEEN'S LEG PARALYZED.—I have an Italian queen, lately bought, whose left hind leg is dead—cause unknown. Can some weather prophet tell me if that misfortune is likely to injure her value as a prolific layer?

YELLOW JACKETS DESTROYING COLONIES.—The yellow jackets during the latter part of summer have attackt and completely "gutted" several weak colonies. They come in swarms, and once they commence on a colony, never leave it till every bee is slaughtered and devoured. I have lost thousands of bees by them this summer, and had to close most of the hives with wire-screens for days at a time to preserve them from these cannibalistic pests. At one time I was much discouraged, fearing they would go through the whole apiary before stopping. I was not at home during the siege, but the only partial remedy suggesting itself to those in charge was to hang up a piece of raw meat, and when well covered with "jackets," deluge them with a basin of boiling water. In this way many were killed, and their numbers and capacity greatly diminisht. Can any one of experience and knowledge give us any advice for future action?

"Nuff sed" for this time, so I'll make way for some one else who knows more and perhaps says less.

Santa Clara Co., Calif.

Odd Experiences of the Past Season.

BY C. W. M'KOWN.

DRONES IN QUEEN-CELLS.—I had about a score of drones incubating in queen-cells in one hive this summer. In making an examination to see why the colony was storing no surplus, I found a large number of queen-cells; one of them got torn open in handling; and on examining it I found it contained a young drone almost ready to hatch! I then took my knife and split the other cells, one after another, and found all contained drone-brood capt over *a la* queen. There were no queens or young larvæ in the hive, but a large number of sealed and hatching drones in worker-comb. I could not tell whether the brood was from eggs laid by an old, played-out queen, or by worker bee or bees. The layer had evidently disappeared about ten days previously. I took all combs containing brood from them, filled up again with worker-brood combs from other hives, gave them a young queen, and all went well.

BEES GETTING INTO A SHOP.—For 15 years my shop windows have been covered with wire-cloth extending up above the windows about five inches, and a little open at the top. When carrying honey in I could let the top sash down, and the bees that happened to get in would go out all right. But this year, for the first time in all these years, the outside bees found the way in! They got to coming in by hundreds, so I had to arrange other kind of bee-escapes. I consider the Porter escape a complete success.

CHICKENS EATING WORKER-BEES—I raised several dozen Barred Plymouth Rock chickens the past season. They had full liberty in the apiary. No thought entered my head that they would eat live bees; but one day when I had a hive open I noticed a half-grown chicken that seemed to be greatly interested, and I thought he was picking up bees. To make sure of it, I set a comb covered with bees down on the ground and stept back a little. He walkt right up and commenced picking bees off the comb. He thumpt them on the ground to kill them at first, but soon got in such a hurry to fill up that he would just give them a hard pinch and swallow them. I let him alone, hoping and expecting he would get stung, but after eating probably 20 or more he neglected the old bees and began picking the larva out of the comb. I then interfered and drove him away. That put me to watching, and I soon discovered other chickens eating bees! Some times they would walk right up in front of a hive and pick bees right off the alighting-board. If a bee would begin to buzz around the chick's head it would run away, and may be go no more than a rod, and commence the same feast at another hive. I believe I never read of chickens eating live bees.

NOT A LARGE CROP.—My crop of honey was not large this year. Too dry. I had only six swarms from 40 colonies. *Three out of the six* came out on the same day—*Sunday at that.*

LAYING QUEENS FIGHTING.—Prof. Newman happened along one day while I was taking out some laying queens that I desired to supersede. I gave him two of them in cages and told him if he would turn them together under a glass dish he would see a fight. He took them to his room and tried the experiment. He afterward told me they associated on good terms for 30 or 40 minutes, then took a scuffle, embracing each other, then rolled and tumbled about for a spell, and then separated and seemed peaceable for over an hour, when they took another tussle, separating again in a few moments, seemingly none the worse for their struggle. Then for about two hours they were not watcht, but when he did again look at them, *both* were *dead!*

Knox Co., Ill.

BEEDOM BOILED DOWN.

Specialty versus bee-keeping as a side-issue, says the Bee-Keepers' Review, is being discust again, and the Review thinks it's waste time. Bee-keepers will take their own way about it anyhow, and after all isn't there room enough for both? Just so.

Fall Introduction of queens the editor of Review thinks not as difficult as some suppose. A Mr. Turner told him he re-queened after breeding ceast, taking no special pains, and never lost a queen. The editor thinks the bees are then hopelessly queenless, and hopelessly queenless bees never refuse a queen.

Thin Foundation without side-walls, made on the machine for the construction of which the members of the Michigan State Bee-Keepers' Association paid last winter, was used to some extent the past season by Mr. Aspinwall. The combs are about as delicate and fragile as natural combs, but the foundation warps and curls terribly.—Review.

Backward in Spots.—Strange that a journal so up-to-date in general as Brasilianische Bienenpflege should be so behind the times in spots. Its readers are advised to use in section-holders sections of four pieces *nailed!* From the American Bee Journal are quoted replies given by Atchley and Heddon! That couldn't be from last week's journal, sure.

Extra Price for Extra Quality.—J. W. Rouse says in Progressive Bee-Keeper, "I am now getting 3 cents per pound more for my extracted honey than some that I know of are getting for theirs." Most likely his customers get full value for that difference of 3 cents. If producers of extracted honey would always produce a choice article, a buoyancy in price would eventually follow.

Amount of Winter Stores.—To carry through an average colony from Oct. 1 to May 1, will require about 12 kilograms (26½ pounds). It may do with considerably less, but it will be at the expense of its proper development in the spring, and every pound the miserly bee-keeper saves by thus shortening the fall allowance, will cost him tenfold as much the following summer.—Vienna Bienen-Vater.

Distance Bees Forage.—As bearing on this question, Editor Hutchinson says: "Forty acres of buckwheat were once sowed early in the season, three miles from my little apiary......It bloomed two or three weeks before any other buckwheat, and my bees workt upon it and secured a little more than enough for their immediate needs, but when the buckwheat bloomed near home, the combs filled up with a rush."

Clipping Virgin Queens to control their flight and thus secure their mating with drones from the home-yard, Hutchinson thinks the most practical and feasible of anything yet struck to control mating of queens. He saw a queen at Mr. Aspinwall's which had ⅛ of an inch taken off each side, and she mated all right. "With black or hybrid bees all around him, Mr. Aspinwall has kept the mismated down to one in 12 with clipt queens, while the unclipt averaged one in 4."

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United States Bee-Keepers' Union.

Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

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Editorial Comments.

The Buffalo Convention Report we will begin next week, and do our best to get it all in this year's numbers of the Bee Journal. We had expected to begin it this week, but couldn't well do it. In place of it, however, will be found a very interesting report of the Southwestern Wisconsin convention.

◆

The Apiary shown on the first page this week is that of John Trimberger, of Clark Co., Wis., which contains 212 colonies of bees. It is the home apiary. The out-apiary is 4½ miles in a southwesterly direction, with 200 colonies. Mr. Trimberger has been a reader of the American Bee Journal since 1879. During the last 10 years he has followed bee-keeping almost exclusively. White clover and basswood have yielded sparingly this year, in his locality, his entire crop for the season being only 15,000 pounds of comb honey and 600 pounds of extracted.

◆

Plea for Honey—Honeyed Baked Apples.—We have received the two following clipt paragraphs from Mr. George Lacey, of Livingston Co., N. Y., which he thinks deserve a place in the Bee Journal—and in so thinking he is correct:

A PLEA FOR HONEY.—Many a weary house-mother exerts herself to put up rows on rows of jellies, jams and canned fruit, often in the extreme heat, when the same amount of time, more healthfully spent out-of-doors, would supply her family with a like quantity of sweets quite as wholesome and palatable to the average household. Of course a variety is desirable, and I would not do away with the time-honored preserve closet, but its dainties might well be diminisht in quantity and supplemented with those which require no manipulation. Especially where there are children is it desirable to have a supply of natural sweets—honey and maple syrup—as it is noticeable that a child can eat much more freely of these than of candy or jams without ill-effects.—Country Gentleman.

HONEYED BAKED APPLES.—In baking apples, honey for sweetening is truly delicious. Wash the apples and core them, but do not peel; a bit of cinnamon may be put in the holes made by removal of the cores. Put the apples into a baking-pan, with just enough water to cover the bottom of the pan. When the apples have baked for 20 minutes, add the honey and baste them frequently until done. For very sour apples use a half gill of honey to every six apples. Eaten hot or cold, with or without cream, they are good.—Exchange.

◆

Fruit-Growers and Bee-Keepers.—The persecution of bee-keepers by fruit-growers in California is not yet at an end. An orchardist, of Orange, has brought suit against an apiarist because of his bees depredating on the fruit. The fruit-grower was defeated in the justice court, but has appealed the case to the higher court, where no doubt the decision will be reverst. There has, as yet, been no farmers' institute at Orange. Prof. Cook says he will soon go down there, and hopes that the bees will be set right in the popular mind.

The olive-growers are generally aware that they cannot secure good crops unless they mix varieties, and have bees close at hand to do the work of pollination. Olive-growers are now very generally acting on this suggestion.

◆

Wetting Sections.—Dr. Dubini having quoted in the Italian bee-journal, L'Apicoltore, Dr. Miller's plan of wetting sections too dry to fold, evidently supposing each section was wet separately, F. L. Thompson makes the correction in Review, saying that a box of 500 or 1,000 sections are wet at once. A wooden plug is made to fit in the end of a funnel, a groove being made in the plug, so that a very fine stream of water will pass through. Boiling water is then poured into the funnel from a teakettle, and the fine stream directed right over the grooves, moving along so that just enough water is poured to reach clear through all the sections.

◆

The Ontario Convention will be held in the County Council Chamber at Hamilton, Dec. 7, 8 and 9, 1897. A good program has been arranged, and liberal hotel rates ($1.00 per day) have been made by the St. Nicholas Hotel. A cordial invitation is extended to all bee-keepers to attend and help make this meeting a grand one. For further information, address the Secretary, Wm. Couse, Streetsville, Ont.

◆

Honey as Food is a neat 24-page circular for use in creating a local demand for your honey crop. We mail a sample free. Ask for it. Prices of quantities are given on another page of this number.

◆

Canadian Bee-Keeping Interests.—The Toronto Globe for Oct. 14 contained the following paragraphs concerning a visit there, made by Editor Holtermann, of the Canadian Bee Journal:

Mr. R. F. Holtermann was in the city yesterday. In the interests of bee-keepers he had an interview with the Hon. John Dryden, Minister of Agriculture. There is at present an act to prohibit the spraying of fruit-trees while in blossom. The object of this is to prevent the poisoning of honey-bees when working on the flowers. Mr. Holtermann stated that the intelligent fruit-grower knew perfectly well that it was not alone useless, but even endangered the fruit crop to spray fruit-trees while in blossom. The injury was done by a few who were still ignorant in this respect, and a less number who did things in a slipshod way. The bulk of mischief was done by men who were about the country with spraying outfits, charging so much for each tree. It was to their interest to begin as early and spray as late as they could induce the farmer to give the contract. To encourage his system was a financial injury to every one but the operator.

Mr. Holtermann stated that quite a number of red clover seed growers were becoming alarmed on the same score. It was well known on account of the length of the corolla of the red clover blossom it was very difficult to propolize it, and before Australia could produce red clover seed they had to import the bumble-bee. The growers of this seed were fearing that as during fruit-blossom the queen, being the only survivor over winter of a nest, would be poisoned when working on the blossoms. This means the destruction of an entire nest and its increase. Mr. Dryden promist to try and find some method of informing the public.

The Weekly Budget.

The Progressive Bee-Keeper makes another progressive step by dressing up in new, clean, clear type, very grateful to the eye.

Mr. W. A. Pryal, of Alameda Co., Calif., wrote us as follows, Nov. 11:

"The prospects for next year continue good, as we have been having plenty of early rains. It bids fair to be an open winter."

Mr. J. W. Rouse, of Missouri, reports in Progressive that on account of drouth he got only half as much as he expected. But some people expect a good deal, and as he actually harvested 120 pounds per colony, he ought to manage to rub along till he gets a full crop.

Prof. A. J. Cook, writing us from Los Angeles Co., Calif., Nov. 10, said:

"The price offered for honey still holds very low. A few have sold for 4 cents per pound, but many can get no more than 3 or 3½ for the best extracted honey."

Mr. J. W. Oglesby, of Logan Co., Ark., writing us Nov. 10, said:

"My bees have done exceedingly well this year, and all have gone into winter quarters full up to the brim. I credit a large part of my success to the American Bee Journal."

Editor Hutchinson, in the Review, speaks very highly of Dr. Miller's work in his department in the Bee Journal—"Questions and Answers." Here is the paragraph Mr. Hutchinson wrote in regard to it:

"Beginners will ask questions, no matter how much you tell them to read a text-book, and if there is any place in which they can get these questions fairly and satisfactorily answered it is by Dr. Miller in the 'Questions and Answers' department of the American Bee Journal."

Mr. John H. Martin, whom we reported as being sick, we have since learned came near having a run of fever, but fortunately broke it up before it had progrest far. It left him very weak, and it was some days before he could do much. During his sickness he had Mr. Clayton, one of the directors of the Bee-Keepers' Exchange, as his substitute as Secretary. On Nov. 10 the Exchange shipt a carload of honey to Ohio. It handled about 10 carloads of honey this season, and has several more on hand. But prices are unsatisfactory.

Beautifully Fernlike.—Editor Hutchinson's terrible affliction in the loss of his little daughter Fern, by the hand of her crazed mother, has awakened the sympathy of the whole fraternity. That sympathy has moved E. E. Hasty to write a couple of verses so exquisite that they must be repeated here:

There is a balm for mourners sad, where funeral torches burn—
None when a darling child grows up—it's gone beyond return.
She grows not old, nor coy nor bold, be future glad or stern;
Immortal now in loving hearts art thou, sweet little Fern.

Father nor sister ne'er shall say, as long as life shall bide;
"My baby's dead, but no one knows exactly when she died,
And there's no grave in any yard to go and weep beside."
Tho tears must flow, and hearts must ache, one fount of grief is dried.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Bees Dragging Out Larvæ.

I am much obliged to my good friend, O. O. Poppleton, for calling attention, on page 690, to my reply about the bees dragging out larvæ. He says the dragging out larvæ when bees are at the point of starvation is the one which requires the promptest attention on the part of the bee-keeper, and he's certainly right in that. He might also have added that for every larva dragged out from all the other causes, five will be dragged out on account of short stores. But I suppose he wanted to let me down as light as possible. You see, besides having a good head, Mr. Poppleton has a good heart.

"How did I come to make such a blunder in answering?" I don't know. I suppose I was intently thinking of what could be the trouble with the questioner's bees just then, and in the month of September the bees would not be at all likely to be dragging out brood on account of short stores. But I see I don't know as well as I might, how to answer questions."

C. C. M.

Cypress Boards for Hives.

Can cypress boards be used for bee-hives? If not, why?

Conn.

Answer.—I don't know. Who can tell us?

Figwort or Simpson Honey-Plant.

The illustration of Simpson honey-plant on page 641, is very different in bloom from that of plants grown from seed purchast of an Ohio firm, the blossoms of which appear in whorls on the main stalk and branches, much the same as catnip. Why this difference?

Florida.

Answer.—At this time of year I can't find a stalk to compare, but as nearly as I remember, and I'm quite familiar with the plant, the cut on page 641 represents very exactly figwort. Notice the enlarged blossom at the lower right hand corner. If your plant hasn't that kind of blossom, then it is not true to name.

Comb Honey Produced with the Aid of Drawn Foundation.

1. From a purchaser's standpoint, is not the value of comb honey based upon the belief that it is the handiwork of the bees themselves, coming directly from the hand of Nature, and therefore pure?

2. From the bee-keeper's standpoint, is not the value based upon the cost of production compared with the market price of extracted honey?

3. If the above deductions are correct (and to my way of thinking they are) would there not be very great danger of injuring the reputation of comb honey for the purchaser if artificial comb is made?

4. Do you think the greater production, on account of furnishing to the bees of sections filled with comb all ready for them to fill with honey, would compensate for comb honey losing its reputation for purity, and the inevitable falling in price on account of greater ease in production, allowing that the manufacturer of artificial comb is a mechanical success?

Nova Scotia.

Answers.—1. Not altogether the belief in purity makes the purchaser willing to pay the price. Looks has much to do with it. The beautiful appearance of comb honey makes customers willing to pay more for it. The quality of the average sample of comb honey is also better than the *average* sample of extracted, and that helps the price of the comb.

Some customers will give as much for a pound of extracted as for a pound of comb, if the quality is the same and they are sure both are genuine, but the large majority will pay more for the comb. Undoubtedly, however, belief in purity enhances the value in the eyes of the consumer.

2. I think not. As a producer of comb honey, I pay no attention to the price of extracted. Neither, in fixing a price on my honey, providing I have anything to do with fixing the price, do I figure at all on the cost of production. Some years my honey has cost me ten times as much per pound as this year, but the price was very nearly the same. Instead of figuring on the price of extracted and the cost of production, I figure on the amount of comb honey produced in general, and the market quotations. Probably most comb honey producers do about the same way. A good many times, however, there is no figuring whatever on the part of the bee-keeper. He simply puts his honey into the hands of a commission man with instructions (if he gives any instructions) to get all he can.

3 and 4. Altho your data may be somewhat faulty, you are undoubtedly right in thinking that whatever awakens suspicion in the minds of consumers as to the purity of comb honey will have some tendency to lessen the demand and thus lower the price. Whether artificial comb would hurt the reputation of comb honey would depend somewhat on the character of the comb. If made as thin and of the same material as that made by the bees, it could hardly make much difference, certainly not so much difference as to overbalance the advantage, providing the common estimate is correct, that bees will store twice as much honey if they don't have to furnish any comb.

But why speculate as to a thing that has no existence? Artificial comb completely built out, of such character that any intelligent bee-keeper would use it for the production of comb honey, has never yet to my knowledge been made, and it is doubtful if it ever will be. The nearest that has ever come to it is the drawn foundation, or foundation with side-walls perhaps ¼ inch deep—a long ways from fully-built comb. Whether this can be furnisht at a price to make it profitable, and whether the bees will use it in a satisfactory manner, are yet unsolved problems. But if it should be found profitable to use it, I have little fear of its effect upon the market on the ground of prejudice against it except as such prejudice is aroused by the unreasonable objections of bee-keepers themselves. Comb foundation is used in most of the comb honey that is produced, and I very much doubt whether a bee-keeper could get any higher price for his honey if the consumer were sure no foundation were in it. Now if the consumer is satisfied to have in his comb honey a certain part of the comb made of wax furnisht to the bees, why should he object when twice that amount is furnisht? If there should be a falling in price on account of the greater ease of production, the bee-keeper would at least be no worse off for it, and the consuming public would be better off. Surely bee-keepers are large-hearted enough to care something for the welfare of others when it costs nothing to themselves.

Replacing Queens—Removing Honey from the Brood Chamber.

1. I have 12 colonies of bees, and next spring I wish to strengthen them as much as possible by replacing with new queens. Would you advise me to get tested, or untested, queens?

2. As I take the queens from the hives, would it not do to transfer those that from appearance seem prolific? If not, why not?

3. When I wish to remove honey from the main body of the hive, how will I know where to find brood-combs and queen-cells so that they may not be disturbed? F. P.

ANSWERS.—1. I would hardly advise it. With little experience in the matter, there would be some probability that some of your colonies would be queenless for some time, and in any case the laying be somewhat hindered by the change, so that your colonies would not be as strong as if you let them entirely alone. If your stock is good stock, changing the queens would be of no use, unless the new queens are of better stock. If your stock is poor, better get a tested queen, then from her progeny supply the other colonies with queens in harvest time.

2. If you mean you're going to transfer to movable-comb hives, by all means transfer queens as well, if all right.

3. It is a mistake to suppose that there is a queen-cell somewhere in the hive that is the permanent abode of royalty. A queen-cell is used merely to rear in it a young queen, and it is then destroyed. Usually there will be a number of queen-cells in a hive, and they may be in any part of the hive. You needn't worry about finding any except about the time of swarming or at the time of superseding a queen. Besides the queen-cells, which have only a temporary existence, there are drone and worker-cells, and all the comb in the hive consists of these two kinds. You will easily tell drone-comb from worker by its larger size. Drone measures four cells to the inch, and worker five.

It will pay you *big* to get a good text-book on bees.

Feeding Maple Syrup—Honey for Wintering.

1. Is maple syrup good to feed bees in early spring, to cause them to breed up? I mean the last runs, that is not salable.

2. How many pounds of honey does a colony of bees consume from the time they are put into the cellar till they are taken out? NEW YORK.

ANSWERS.—1. Maple syrup will do very well to feed after bees fly in spring, not feeding so much or so late that there is any danger of its going into the surplus honey.

2. The amount varies very much, and sometimes with no apparent reason. Perhaps from 5 to 20 pounds will be consumed from the time of putting in the cellar to taking out, but it must not be forgotten that a goodly quantity will be needed after taking out before any one will be gathered from outside.

Wintering a Late Robbed Colony.

I have a colony of bees that was robbed in October of all honey and comb. They went to work and now they have a piece of comb about 6 by 12 inches. Not knowing what to do I have been feeding them on granulated sugar melted up. Yesterday I got some liquid honey with bee-bread in it. They like it. I have them in a room warm enough so they can work every day on the food. Can I feed them and keep them over winter? If so, what will I have to feed them? What temperature ought the room to be kept? MICHIGAN.

ANSWER.—It isn't the surest thing in the world that a colony will winter all right if late in the season it has not only to be fed but to build its combs. Nevertheless you are probably doing about the right thing with it, and will do well to keep right on till you think the bees have enough stores to last them through the winter. Twenty pounds of food will make them safe, and if the colony is weak less will answer. But a weak colony will consume more in proportion than a strong one. That is, if you have one colony twice as strong in bees as another, it will not consume twice as much stores, altho it will consume more than the weaker one.

Instead of making the bees build their combs, it would be a good thing if you could buy from a neighbor two or three empty brood-combs, or, still better, combs filled with sealed honey.

After you are through feeding the bees, don't try to keep them in a warm place, but put them in a cellar where they will be kept dark and quiet. The right temperature is that at which they will be most quiet. That will likely be somewhere about 45°.

Honey as Food is the name of a 24-page pamphlet, 3¼x6¼ inches, which we are now printing for general distribution among those who should be users of honey. It is just the thing for bee-keepers to hand to every one of their customers, and also to those whom they would like to have as customers. It is very handy in size—just right to go into an ordinary business envelope. It contains 12 illustrations, five of which are somewhat comic, and help to make it attractive. There is a blank space for your name and address. About ⅛ of the pamphlet was written by Dr. Miller, and then we added thereto many new and valuable honey recipes—for cooking and for medicinal purposes. In all, it makes a neat little pamphlet. Send name and address and we will mail you a sample of "Honey as Food."

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The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

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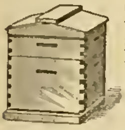

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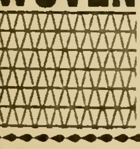

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General Items.

Sweet Clover on Limestone Glades.

I would like to ask if any of the readers of the American Bee Journal have had any experience with sweet clover on rotten limestone glades, in which the soil is but a few inches deep, and is rather wet during the rainy seasons, as I have a chance to sow several acres of such land.

Bees did splendidly the first of the season. One colony that was transferred last spring gathered 50 pounds of surplus comb honey of fine quality, but the last of the season was dry, and we got but little honey of any kind.

C. W. DRURY.

Christian Co., Mo., Nov. 2.

Very Poor Season.

This was a very poor season for western Washington. I got less than 500 pounds of honey from 55 colonies, and increase to 68. S. D. WININGER.

Chehalis Co., Wash.

Poor Season for Bees.

I did not get 10 pounds of honey for my family use this year, but must feed my 11 colonies to winter them. I put all my swarms on six frames in 8-frame Langstroth hives, and on both sides a chaff division-board, on top a super filled with chaff, and so I hope to get them through the winter in good condition on the summer stands. To-day (Nov. 7) we have a nice, warm day, and I have seen bees work on the white clover all over.

I like the Bee Journal very much. The articles from Dr. Gallup are worth the subscription price.

A. F. FLUCKIGO.

Lewis Co., Wash.

Management the Past Season.

What I am about to say I well know is in direct opposition to all the bee-lore I have ever seen or heard. First, to return all swarms to the parent hive and have them go to work as before swarming, is not practicable, or at least it has been so talkt. But being inclined to have my own way about many matters, and not desiring to increase stock, I adopted measures that at first lookt hazardous and discouraging, but being persistent in mind (or trying to be) as the bees are, I said to myself, "I will conquer." The first few began pouting and hung outside in idleness for nearly a week, with my driving them in several times with smoke, still they persisted. Then I said, "If grass and turf will not do I will try what virtue there is in stones." I then took all supers from the hives (which were partly filled, some nearly full), when they swarmed, and not a thing done thereafter. I took two center frames from the hive and made a nucleus with them, giving them empty frames, and drove them in, and they went to work with a vim, which gave me entire satisfaction. Thus did I proceed through all the swarming season, if they did not go to work about the second day.

I well know this is not in line with all the bee-literature I have ever read, but

BEES FOR SALE.

About 90 Colonies of Italians. Any one wanting to start an apiary cannot do better than to call on Dr E. Gallup, Santa Ana, Calif., and examine the Bees before purchasing elsewhere. Double sets of Combs in Langstroth-Simplicity Hives, and warranted a superior lot of Bees for business. Correspodence solicited. **Dr. E. GALLUP,**
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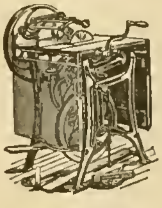

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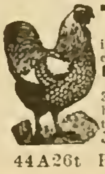

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it is in line with good results. They averaged a little over 100 pounds per colony, spring count. I had but few of early swarms, but have doubled up nuclei and three late swarms, numbering now 90, all in good condition.

I preserved or killed all old queens, and eight days after cut out all queen-cells save one, and had but very little trouble with swarming thereafter. So the method adopted proved very successful after all. I have disposed of a portion of my crop, but have quite a quantity left yet.

I very much regret the loss I have been to in not being able to again attend the late Northwestern convention, which I believe would have been very interesting. Yet I hope to get it all through the columns of the "Old Reliable." A. Y. BALDWIN.

DeKalb Co., Ill., Nov. 12.

Poor Season in Maine.

It has been a very poor season in this part of Maine. I have the lightest crop since I started in the pursuit of bee-keeping, about 16 years ago. I began the spring of 1897 with 20 colonies, increast, by dividing, to 31, and have only taken off 400 pounds of comb honey, and about 450 of extracted. The comb is mostly from a bush which we call "swamp maple," which furnishes a very fine honey, about equal to clover.

We had hardly any clover honey, as clover winter-killed for the last two years, and no basswood. The fall flow was quite good, mostly from golden-rod, but is not a very good food to winter on, so I have extracted nearly all, and given sugar syrup.

We are hoping for a good year next year. FRANK CHAMPEON.

Penobscot Co., Maine, Nov. 12.

Report for the Season.

I take great interest in reading the various reports from bee-keepers, and am prompted to also give a report of my season's work.

Bees wintered poorly last winter. I lost about 30 colonies during winter and spring, coming through with 53, most of them very weak in bees and short of stores. The spring was late, cold and stormy. They got absolutely nothing from maple and other early bloom, being too cold for them to fly, and when they did venture out thousands of them were chilled and never returned to the hive. They dwindled badly. I never had the blues so badly since I kept bees. I did not expect a pound of honey, and yet needed a good crop ever so bad, as bee-keeping is my main support. But I went at them with a will, determined to bring them to the front if possible. I largely followed Mr. Doolittle's methods with weak colonies, fed wherever needed, kept them well cushioned, and even after first supers were put on.

Fruit-bloom was good, and the weather good most of the time while the bloom lasted, and they bred up and got strong much beyond my expectations. There was abundance of Alsike clover in easy reach of them, and, oh, how they did roll in the honey, that is, those that were strong enough. From many I had taken all the brood except one comb to make others stronger. Those I made strong stored most of my surplus, and gave me some good swarms. Those from which I took brood built up into

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The Monette Queen-Clipping Device WORKS LIKE A CHARM. With it I have clipped 30 queens, all in one day, when examining my bees. WM. STOLLEY, Grand Island, Nebr.

Couldn't Do Without It.

I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now.

DR. GEO. LACKE, Newburgh, Ind.

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good colonies, stored some surplus, and a few cast late swarms, which were returned.

I got a ton or over of surplus honey, and increast to 89 colonies. Of course, not a large yield of honey for the number of colonies, but yet just that much more than I expected; and taking all into consideration I think I did exceedingly well. The honey is very fine.

Honey is low in price, yet I readily sell my best grade at 15 cents per pound at retail, or 13 to 14 cents by the case of 12 sections. A lower grade I sell at 12 cents per pound. There is plenty of good honey offered at 12 to 12½ cents per pound, some in good shape, but much also in such unattractive condition that it is not very salable.

White clover bloom was very abundant, but yielded no nectar; only on a few days could I see any bees on it. Basswood also yielded nothing, altho fairly full of bloom. It seems strange what a difference there is in the honey-yield in localities only a short distance apart. A large bee-keeper only 10 miles away told me he got a good fall flow, while I got none, altho the bloom was plenty all around me. I had a good yield from Alsike clover, while several bee-keepers not over 4 or 5 miles distant told me they got little or nothing from it, and that they could see but few bees working on it.

My 89 colonies have their brood-chambers well filled with honey and bees, and I have a good supply of extra combs filled with honey for spring use. I did no fall feeding except to get some partly-filled sections emptied, and put in a few filled combs where needed.

A. H. Snowberger.

Huntington Co., Ind., Nov. 15.

Poor Honey Season in Nova Scotia.

Bee-keeping in Nova Scotia is not an extensive industry by any means. Our springs are generally very cold and backward. Clover blooms about June 15, and basswood about July 15. The honey-flow has been very poor this year.

I have only 10 colonies, not having time to keep a larger number. There are very few bee-keepers in the Province who keep more, that I know of.

Edward S. Goudge.

Nova Scotia, Canada.

Sweet Clover in Florida. Etc.

I see that Dr. Miller mentions in his department the failure of Mrs. Harrison to grow sweet clover in this State. It may be of interest to some to know that I have succeeded in growing it, on a small scale, here on the East Coast, both on sand land and on hammock or heavy bottom land. On the latter soil it grows quite well, tho not so strong and heavy as at the North, and I have some nice plants now in bloom on light sand soil. While I doubt its ever becoming a weed here, and caring for itself among other weeds, I think it would be successfully grown in our hammock soils, and even on sand, if of a moist character. Seed should be planted here in the fall.

Capt honey it is generally supposed is cured honey, but I have had it, from cabbage palmetto, run freely from the combs when the capping was cut, and show unmistakable signs of fermentation, altho this same honey could scarcely be shaken from the combs before it was capt. In fact, I find this

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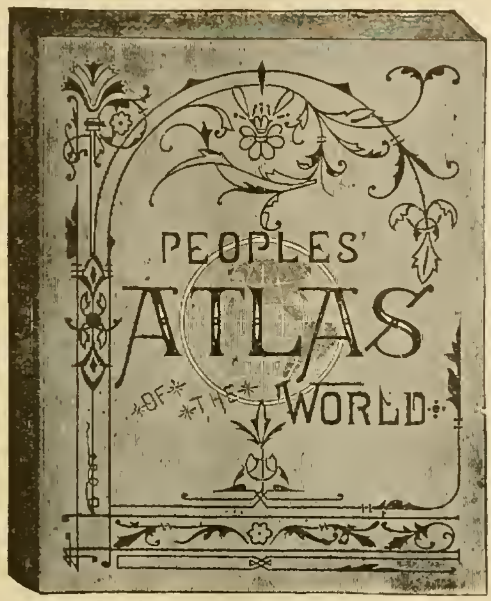
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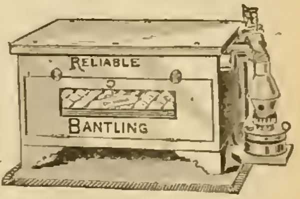

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Reliable Incubator and Brooder Co., Quincy, Illinois.

37D17t

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trouble generally with cabbage palmetto honey, perhaps for the reason that it is usually stored during rainy weather. Will Mr. Poppleton kindly tell us if there would be any advantage in extracting this honey before it was capt, or is his plan of drawing off from the bottom of deep receptacles the best way to treat it? C. S. HARRIS.

Volusia Co., Fla., Nov. 8.

◆

Not the Whippoorwill.

To save the reputation of a useful feathered friend, I must take exception to the report of T. S. Ford as copied from Gleanings, on page 695, in relation to the "whippoorwill or nighthawk" eating bees.

First, it is not the whippoorwill to which be refers (tho a great many people make the mistake of calling it so), but the chuck-wills-widow (Autrostomus Carolinensis, family Caprimulgidæ) of the same genus and family, but not the same species as the former.

Second, its habits would preclude the possibility of its eating bees *as a habit.* I have known and studied this bird for years, and never knew of it hunting insects until after sundown, when all honest bees should be at home.

I quote the following from the writings of Theo. Gill, upon this genus:

"The chief distinctive characters in contrast to the nighthawks, are found in the bristled gape and the form of the tail......'The corum on species, and presumably the others, are nocturnal in their habits, remaining silent and keeping within the shady recesses of the forest during the daytime. As soon as the sun has disappeared and the *night insects* are in motion,' they leave their retreats for exercise and in search of food. In the early part of the evening, and then only for a brief period, they emit the peculiar cry which is intended to be exprest by the popular name."

Mr. Ford's description of the mouth of the bird he shot is all right, but I for one should like to have him examine more closely and see if he is not mistaken as to this bird being the one which destroyed his bees.

ERNEST W. HALSTEAD.

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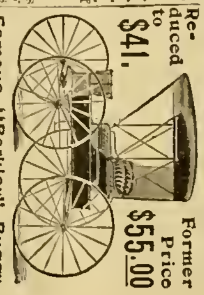

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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Nov. 8.—Fancy white 11 to 12c. No. 1, 10c.; fancy amber, 8 to 9c.; No. 1, 7.; fancy dark. 7 to 8c.; No 1 and mixed. 7c. Extracted, white, 5 to 6c.; amber. 4½ to 5c.; dark, 3½ to 4c. Beeswax, 26 to 27c.

All of these grades vary in quality and style of package, which makes it difficult to tell just what a certain colored honey will bring without knowing flavor and body thereof. Sales are of small amounts, and supply abundant. Beeswax is wanted at price quoted.

San Francisco, Calif., Oct. 27.—White comb, 1-lbs., 7½ to 9½c ; amber. 4 to 6c. Extracted, white, 4¼ to 4¾c.; light amber. 3½ to 3¾c.; dark tule, 1¾ to 2¼c. Beeswax, fair to choice, 22 to 24c.

There is a tolerably firm market for choice to select water white, both comb and extracted, with not much of the same offering. In a small way on local account higher rates than are quotable are realized. Dark grades fail to receive any special attention, despite the fact that such are obtainable at low figures. There is no lack of demand for beeswax, and not much offering. At the same time, wholesale buyers refuse to operate at any advance on previous rates.

Philadelphia, Pa., Nov. 13.—Fancy white, 13 to 14c.; No. 1. 12c.; fancy amber. 10c.; No. 1. 9c.; No. 1 dark, 8c. Extracted, white, 5 to 5½c.; amber, 5c.; dark, 4 to 4½c. Beeswax. 27c.

Honey is arriving very freely; market is a little off. Beeswax is in good demand.

Buffalo, N. Y., Nov. 19.—Trade is more quiet, and only the fanciest is moving satisfactorily at 10 to 11c.; other grades require pushing and cutting to move much, at from 9 to 6c., as to actual grade. Supplies are not large. Fancy can be easily placed. Extracted moves fairly well at 6 1-2 to 4c., as to color, etc.

Albany, N. Y., Nov. 8.—Fancy white, 13c.; No. 1, 12 to 12½c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c ; fancy dark, 8 to 8½c.; No.1, 7½ to 8c. Extracted, white, 5 to 6c.; amber, 4½ to 5c.; dark, 4 to 4½c.

Our honey market is active and stock moving off rapidly at quotations. Fancy white comb is scarce.

St. Louis, Mo., Nov. 8.—Fancy white, 11 to 12c.; amber, 9 to 10c.; dark, 7 to 8c. Extracted, white, 5½ to 6c.; light amber, 4½ to 5c.; amber, 4 to 4½c. Beeswax, prime, 24 to 24½c.

Remand is rather light for this season of the year.

Boston, Mass., Nov 8.—Fancy white, in cartons. 13c.; No. 1. 11 to 12c.; fancy amber, 10c. Ex-tracted. white, 6 to 7c.; amber, 5 to 5½c. Beeswax, 28c.

No. 1 and fancy honey has sold well during the past 10 days, but off grades and light weight is going slowly. Beeswax is in good demand and but little here.

Kansas City, Mo., Nov. 8.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.; fancy amber, 10c. No. 1 9 to 10c.; fancy dark. 9c.; No. 1, 8. Extracted, white, 5½ to 6c.; amber. 5 to 5½c.; dark, 4 to 4½c. Beeswax. 22 to 25c.

Receipts of comb honey are large; extracted is light.

Minneapolis, Minn., Nov. 8.—Fancy white, 10½ to 12c.; No 1, 9 to 10c.; fancy amber, 9 to 10c.; No. 1, 9c. Extracted, white, 5 to 6c.; amber, 4 to 5c.

Demand is good, prices are firm, and supply only moderate—best time so far this season to ship.

New York, N. Y., Nov. 8.—Fancy white, 12c.; No. 1, 10 to 11c.; fancy amber, 0 to 9½c.; No. 1, 9c.; fancy dark, 8½c.; No. 1, 8c. Extracted, white, 5 to 5½c.; amber, 4½ to 5c.; dark, 4c. Beeswax, 26 to 27c.

Our market does not show much activity and comb honey is moving off rather slowly. The receipts are large and the stock is accumulating. While choice grades of white are likely to find sale at present quotations, prices on off grades and buckwheat will have to be shaded in round lots. Southern in barrels is in good demand at 50c. a gallon, for average grade.

Detroit, Mich., Nov. 9.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c.; fancy dark, 7 to 8c. Extracted, white, 5 to 6c.; amber, 4 to 5c. Beeswax, 25 to 26c.

Cleveland, Ohio, Nov. 9.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c.; fancy dark, 7 to 8c. Extracted, white, 6½c.; amber, 5½ to 6c. Beeswax, 28c.

Milwaukee, Wis., Nov. 8.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c. Extracted, white, 5½ to 6c.; amber. 4½ to 5½c.; dark, 4 to 4½c. Beeswax, 25 to 27c.

The market is in good condition. Receipts are liberal, demand fair, and values fairly sustained on finest grades of honey, both comb and extracted. We are looking for an increased consumption of honey this season, as the cost is not high, and is an unequalled substitute for butter to any or all who cannot afford to buy the best butter.

Indianapolis, Ind., Nov. 8.—Fancy white, 11 to 13c.; No 1, 9 to 10c.; fancy amber, 9 to 10c. Extracted, white, 5 to 6c. Beeswax, 25c.

Demand for fancy white comb honey and fancy white extracted is exceptionally good, while there is almost no demand for dark or amber comb or extracted honey.

Cincinnati, Ohio, Nov. 6.—Fancy white, 11 to 13c.; No. 1, 10 to 12c.; No. 1 amber, 8 to 10c.; No. 1 dark, 7 to 8c. Extracted, white, 5 to 6c.; amber, 4to 5c.; dark, 3½ to 4c. Beeswax, 22 to 25c.

Demand is slow for extracted and comb honey, with a good supply, while beeswax is in good demand, with a fair supply.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

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Kansas City, Mo.
C. C. CLEMONS & Co., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Cleveland, Ohio.
A. B. WILLIAMS & Co., 80 & 82 Broadway.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.
Mr. Selser handles no honey on commission

St. Louis, Mo.
WESTCOTT COM. Co., 213 Market St

Minneapolis, Minn.
S. H. HALL & Co.

Milwaukee, Wis.
A. V. BISHOP & Co.

Boston, Mass.
BLAKE, SCOTT & LEE., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
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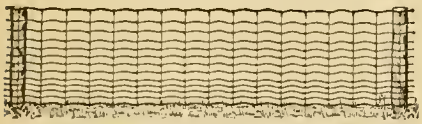

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37th Year. CHICAGO, ILL., DECEMBER 2, 1897. No. 48.

CONVENTION PROCEEDINGS

Report of the Buffalo Convention of the United States Bee-Keepers' Union.

BY DR. A. B. MASON.

The 28th annual convention of the United States Bee-Keepers' Union was held at Buffalo, N. Y., Aug. 24, 25 and 26, 1897.

By way of preface I would like to apologize to the members of the Union for the delay in furnishing these proceedings for publication.

R. F. Holtermann.

W. Z. Hutchinson.

R. L. Taylor.

Before leaving home for the Buffalo convention I had made arrangements for a stenographer to " take down " everything that should be said, so that we might have the most complete report we ever had, but on arriving at Buffalo no stenographer was to be found, altho one had been engaged. Several efforts were made to secure one, but none could be secured without the payment of an exorbitant price, so that no stenographic report was made.

On the arrival of Mr. W. Z. Hutchinson at the convention, I told him of my dilemma, and askt him to report the proceedings, which, as I understood it, he consented to do, and I made no attempt to keep any track of the proceedings. Owing to the heart-rending afflictions through which he was called to pass at the close of the convention, and his being very busy at the fairs, I received a few days since from him what he had prepared, and of which he says:

"The notes are not nearly so full as I should have taken if I had been taking them for the Association, for the purpose of publication. I was taking them for my own private use only. I am sorry that a fuller report was not taken of the discussions, but I suppose that this is the best that can be done under the circumstances. I am sorry, too, that I could not have written them out sooner, but the other tasks and burdens in the way prevented."

No one feels the want of a complete report of all the proceedings and discussions more keenly than I do, and as there seems to have been a misunderstanding between Mr. Hutchinson—on whom I relied for a full report—and myself, but little besides the papers read can be publisht.

When the time had come for opening the convention President York had not arrived, the train on which he and Dr. Miller and Mr. E. Whitcomb, of Nebraska, Rev. E. T. Abbott, of Missouri, and others were speeding towards Buffalo, being two hours behind time.

The convention was called to order in the hall of Canton's Business College, at 10:30 a.m., by the Secretary, and Mr. R. F. Holtermann, editor of the Canadian Bee Journal, was chosen temporary chairman.

It was decided to wait until the arrival of the President and his company before taking up the regular order as on the program, and that the time be occupied in the asking, answering, and discussing questions.

As no record of the discussions was kept, it will avail nothing to give the questions askt, but they were ably discust by O. O. Poppleton, of Florida; W. Couse, R. F. Holtermann, R. McKnight, I. Overholt, and M. B. Holmes, of Ontario; F. Danzenbaker, of the District of Columbia; Dr. H. Besse and Dr. A. B. Mason, of Ohio; and S. A. Niver, C. R. Isham and E. H. Sturtevant, of New York.

During the discussions Pres. York, Dr. Miller, Rev. E. T. Abbott, E. Whitcomb, and others, arrived. After a brief recess, and hand-shaking, Pres. York called the convention to order, and the discussion of questions was continued till adjournment at noon.

FIRST DAY—Tuesday Afternoon Session.

The convention was called to order by Pres. York at 1:45 o'clock.

Mr. O. L. Hershisher had a piano placed in the hall, and Dr. Miller was requested by the President to see if he could tell what it was there for, and without answering "I don't know," he at once led off with the "Bee-Keepers' Reunion Song," as printed in the program, and all who could sing seemed to try to see how much they could help the Doctor.

At the conclusion of the singing Mr. R. F. Holtermann, of Ontario, Canada, read the following paper, entitled,

Pure Air, Ventilation, and Artificial Heat in the Wintering of Bees.

During the summer of 1895 I had the good fortune to visit the apiaries and home of one of our foremost and most enterprising Canadian bee-keepers, C. W. Post, of Ontario. Mr. Post exprest great confidence in artificial heat for cellar wintering. He was kind enough to give me his ideas, and the system he thought it would be well to follow, and as a result, a very thorough test was made during the winter of 1895-96, and again during the winter of 1896-97.

I am perfectly well aware that a great many have applied fresh and pure air in the wintering of bees, and with greater or less success. I am also aware that artificial heat has been applied, the instances on record are, however, less frequent, and I do not know of any who for a series of years has made a success of this, nor do I know of anyone who is constantly using artificial heat and fresh air to replace the air made impure by the bees. A combination of these will lead to success. In the application of pure air the great difficulty has been regularity of current, and regularity of temperature. When cold outside it is necessary to exclude, or partially exclude, outside air to keep the cellar the proper temperature; this we know leads to foul air. If this cold fresh air is allowed to enter, the temperature falls, and the bee-keeper is often at a loss to know which of the two evils is the lesser.

Again, when the outside temperature is about the same as the inside, there is a tendency to stagnation, and the atmosphere in the cellar becomes vitiated, the bees are correspondingly restless and proportionately worn out and aged. Sub-earth ventilation has been tried, but in this the above difficulties have presented themselves to a lesser or greater degree, and many have used them for a time, in the end abandoning these methods.

To cheer and comfort the fraternity (if comfort can be derived by having brethern in tribulation), I may in passing say that dairymen who require accurate temperatures and degrees of moisture in ripening cheese have experienced all our perplexities, and those advanced in their calling are studying this question as we are.

What we require, is to be able to control temperature, and to secure a cheap and practical power by means of which we can secure a steady ventilation, or, in other words, draw or push atmosphere. For some years my thoughts ran in the direction of electricity, and altho it is not yet within the range of the practical, I believe the time is not far distant when by a system of storage batteries we will at a nominal outlay through windmills, develop electric power which can be used as required for power, heat and light, and by means of electric currents ventilators will open and shut, heat be applied or cut off automatically, as temperatures rise and fall in the cellar. But for the present, by means of artificial heat we have the power to force currents in whatever direction we may desire. The same heat also serves to regulate the temperature, and here we have an element within the reach of the practical.

The first test was conducted under the following conditions: A large stone cellar was divided into five parts, four being used for the bees, and these repositories communicated with one another by means of doors, and also by means of openings 14 inches square near the top of the room, and through these openings the pipe extended ran. The size of the pipe was 6 inches, the balance of the openings of course allowed a circulation of air from one room to another.

A stove called the "Tribune," was placed in the first room and near the cellar door which communicated with the outside, and through this floor the fresh air from the outside had access. The air in its natural course by means of the openings around the stovepipe past from room to room, and finally in the fourth room past out by means of a similar opening in the chimney—the same chimney into which the regular pipe entered. This chimney had in addition, entering it, a pipe from the stove used in the living-room above.

The fuel used at first was wood, but the pipe was too hot and irregular, and it resulted in more or less odor from the pipe, particularly the last portion which became cool before entering the flue. Stove coal was used and the fire kept up for 3½ months; stove coal was the size, and 2,550 pounds used.

There were 70 colonies in Part 1, 75 in Part 2, 80 in Part 3, and in Part 4, 75. The bees were put in Part 1, Oct. 26; Part 2, Nov. 20; Part 3, Nov. 21; and Part 4, Nov. 22.

In the records (with one exception) the variations in temperature were very slight. The night of Feb. 14, the fire went out, and the next morning the cellars registered as follows: Part 1, 38°, Parts 2 and 3, 40°, and Part 4, 42°. You will notice that the temperature was raised by the bees as it past from cellar to cellar. There was a wet and dry bulb thermometer in each cellar, and the temperature half way between the floor and ceiling was as follows:

	Dry.	Wet.		Dry.	Wet.
Part 1,	46°.	43°.	Part 3,	45°.	43°.
Part 2,	45°.	43°.	Part 4,	46°.	45°.

The difference in temperature of top and bottom of Part 2 was three degrees; in Part 4, six degrees. In Part 4, there was a fire in the room above; in Part 2, this was not the case. I draw attention to this as some may consider these variations sufficient when taking the temperature of a cellar. You will notice that Parts 1 and 4 dry bulb both stood at 46°, but the wet in Part 1, the first cellar into which the pure air past, stood at 43°, and Part 4, at 45°; into this the air went after being through the other three cellars, the added moisture we would expect to have been expelled by the bees in the previous cellars. Moisture and temperature were taken, but how about the impurity? I think I can give you several practical indications of this, at least the weight of evidence tends to show that pure air is an important factor.

The bees in Part 1 cellar appeared to be quieter than in Part 4; leaving a lamp burning for even a half hour in Part 1 the bees never flew to the light in Part 4; altho they did not fly to any great extent to the light there was a tendency in this direction. In fact, all through the winter they were more restless in the last cellar, and to prevent great injury to the bees, fresh air from another source was allowed to enter Part 4 cellar.

There was no perceptible difference in the first three cellars—the bees could be seen clustering quietly in Part 1, some of the hives being within 7 feet of the stove. A thorough inspection was made March 19, the contents of the hives being examined at the entrance, and upon lifting cushions and quilts, when possible, not the slightest indication of mold or dampness could be detected. Only two colonies showed the least sign of dysentery, and these had bees whose queen had shown symptoms of the same disease the winter before, and were kept purposely to see if they would have the disease again.

Part 1 cellar contained 60 colonies, with bottom-boards on the hives as on the summer stands, and entrance full width. Fifteen had 2-inch rims placed under the brood-nest.

Part 2 contained 50 hives, with the back ends of the hives 3 inches higher than the front, and the brood-chamber ⅜ inch from the bottom-boards, and 25 colonies with 2-inch rims under the brood-nest.

Part 4 had 75 colonies, all the backs of hives raised ⅜ inch from the bottom-boards.

All the hives were covered with a cloth, and over the cloth one inch of sawdust. The bees were placed on their summer stands April 7, 8, 9 and 11. As to method of adjusting entrances and bottom-boards, there appeared to be no great difference in results. With the exception of several starved and mice-destroyed colonies, every one came through alive and in good condition. The indications of good wintering were:

1st. Their quiet condition.

2nd. Bees clustered compactly.

3rd. Individual bees did not fly to the light from the stove, lamp or outside door through which the fresh air had access.

4th. There was no brood in the hives when placed on their summer stands.

The air passing from cellar to cellar is not a condition to be desired, but it served as a splendid object lesson to the bee-keepers of the country, and emphasized the desirability of having pure air, as no other experiment could. A similar experiment was tried during the winter of 1896-97, and with similar results.

There is one point I wish to emphasize, and an additional experiment during the past winter goes to show the importance of this. The chimney into which the foul air passes, must be what we call a live chimney—it must have a pipe with hot air constantly passing into it. Why? Because in this way we secure the power necessary to make the current travel one way in the chimney. We know that cold air will rush into warm, and the variations in temperature is a cause for the movement of atmosphere. Last winter I arranged another cellar with the same method in view. The stove was boxt in a compartment about 4 feet square, as air-tight as matcht lumber, felt paper, and sheet iron could make it. A shaft of fresh air opened under the stove, and half way between ceiling and floor, and at opposite sides two pipes led to the bee-cellar, the pipes discharging pure atmosphere along the cellar walls. I could not reach a live chimney, so put the foul air pipe outside of, and about the stove-pipe, making a double pipe, thinking that the heat from the stove would act as a sufficient motor to secure a steady current of air. During cold weather, everything workt well, but when the fire was low there was not sufficient heat in the pipe, and the atmosphere would become stagnant or the current reverst, and instead of the foul air being carried off by the pipe, the cool air would rush down the ventilating-pipe and into the cellar without passing through the heating compartment. The direction of a current can readily be detected by means of a sheet of paper held close to the opening. The sheet of paper will be drawn in the direction of the current. There were slight symptoms of dysentery in some; only one colony was found dead when taken out and one was queenless; it was an improvement on no regular ventilation, but not satisfactory.

So much for pure air and artificial heat. You will notice that the appliances available were not perfect. A cellar should be so constructed that air can enter and escape only through regular openings. What is required is a thoroughly equipt apiary, and buildings specially constructed for experimental work in every county.

R. F. Holtermann.

Mr. Holtermann's paper was discust by Dr. Besse, Dr. Miller, Dr. Mason, Jacob Dickman and others; and after a recess of ten minutes Capt. J. E. Hetherington, of New York, cas called out, and was most heartily applauded. All seemed anxious to do the Captain honor, and he highly appreciated the markt evidence of esteem, and in a very instructive and entertaining talk delighted the convention.

Next came a paper by Mr. E. Whitcomb, of Nebraska, on

Apiarian Exhibits at Fairs.

At the fairs is where the apiarist dons his Sunday suit and places before the public the finest product of his or her apiary. These exhibits are beneficial in many ways. First, they are the main educators of the general public. In the past 13 years in the apiary department of our State I have many times stopt my busy work to explain to some rural body that the extractors were not churns; that we produced no strained honey at this time, and that the pure, clear extracted honey on exhibition was as far, in flavor and purity, from being the strained honey of our younger days as the east is from the west.

E. Whitcomb.

In my observations at the fairs I more than suspect that the education has not been entirely with our rural friends, but that it has gone into the largest apiaries of the country. At the fairs we meet in friendly and often close communion. Here we exhibit our skill as bee-masters, our good taste and neatness in performing our part in showing our goods to the best advantage, for if we please the eye we also tickle the palate and thus increase the demand.

During the past few years I have pleasantly noted the strides that have been made in the manner of making exhibits; that the finest honey placed on exhibition in colored glass failed to attract the eye of the great throng who viewed the exhibit, and finally scored several points below when the expert judge summed up for placing the awards; the dark-colored sections or a liberal amount of propolis untidily left upon them was also a cause of failure. Here is where we reap the great benefit from making exhibits at fairs. We get better acquainted with one another, and are enabled to get a better interchange of ideas, and to annually make some improvement, some advancement, from what we have seen and heard at the fairs.

We have yet great improvement to make in these exhibits, in the manner of placing them, and in the awarding of premiums. In our own State fair we have adopted a system of making all entries within the department where they are to be exhibited, thus saving the exhibitors the trouble of ranging around the Secretary's desk, and often being waited upon by clerks who have little experience in this department, or have little idea of just where the entries of different articles should be made.

Again, the system of score cards has been adopted with 100 as the maximum, with a judge who is an expert, and the different exhibits in their class going before him by the number of their entry rather than the name of the exhibitor. This plan can hardly fail of giving entire satisfaction, of knowing that favoritism at least did not figure them.

Not only the honey-producer but the supply-dealer should take an interest in the exhibits at the fairs, both local and State. When we are at the fairs we are somewhere in the line. When not in line we have dropt out, and no exertion otherwise can give us the standing with our customers that an exhibit can when we meet them face to face and are better acquainted.

E. Whitcomb.

Following Mr. Whitcomb's paper, Mr. W. Z. Hutchinson, editor of the Bee-Keepers' Review, of Michigan, read a paper on

Suggestions on the Making of Exhibits at Fairs.

Dealers in apiarian goods, and manufacturers of these goods, have made exhibits at the fairs for the sake of the advertising that may be secured thereby; The producers of honey have also exhibited their product for the sake of the advertising, and for the sake of what they might sell at the fairs. Others have exhibited bees and honey at fairs mainly for the sake of securing the premiums offered. It is with the latter object in view that I have made exhibitions, and it is from this point of view that my suggestions will be made.

The first thing to be considered is the premium list. It is at the winter meeting when the agricultural societies revise their premium lists, and to these meetings should be sent a delegate, or delegates, from the State bee-keepers' societies with instructions to look after the interests of the bee-keepers. I went one winter, with Mr. H. D. Cutting, to the meeting of our State Agricultural Board, and succeeded in getting the premium list raised from \$150 to \$300. Whoever has charge of the preparation of the list should be extremely carefull as to the wording, that it be so simple, yet so specific and clear that it cannot be misunderstood. I must say that I admire the New York list in one respect, it limits the amount of honey that shall be shown. The limit is 250 pounds, no more and no less. In times past the premium was offered on the largest exhibit. Now most of the lists say, "the most attractive display." This is much better. It is true that size may be one factor in the attractiveness of a display, and the Illinois list places quantity at 40 per cent in 100 points. But if 250 pounds of honey are shown, I think that better results may be secured by offering a premium upon the quality of the honey and the attractiveness in which it is put up, than by offering a premium on a large quantity. Put the exhibitors on their mettle as to attractiveness of display. As it now is, the displays are, mostly, simply big piles of honey as it might be piled up in some commission merchant's store.

Extracted honey in the liquid form cannot be shown to much advantage except in glass, and if the glass is of the white or flint variety, and there is a window back of the exhibit, the light coming in and "shimmering and glimmering" as it strikes the honey, a very beautiful display may be made. There ought also to be an exhibit of candied honey, and explanatory labels, then when honey candies on the hands of some ignornant purchaser—or rather, purchaser that once was ignorant—he will know that it has not "turned back to sugar." I am glad to note that Illinois offers premiums on displays of candied honey. Illinois has done another good thing, she has gotten up a score card to be used in judging the honey exhibits. This shows exhibitors upon what points their exhibits are to be past, and is a guide to the judge. I believe that Illinois now stands near the head as regards her apiarian premium list and show at the State fair. One reason for this is because her bee-keepers bustle and tell the managers what they want. The managers of fairs are usually willing to grant anything reasonable that is askt of them. The reason, or, at least one reason, why the premium lists of so many States are so meager is because the bee-keepers have never askt for anything better.

Of course, I am saying considerable about the premium list, but that is the foundation of all successful and profitable exhibits. In most of the other departments of the different State fair lists there is something approaching uniformity—that is, the horse department of the premium list of Michigan does not differ materially from that department in other premium lists, and their is no reason why the same uniformity might not exist in the apiarian department; in fact, it is approaching that now to some extent. No list any longer offers premiums on full colonies of bees—they all say: "single-comb observatory hive." But let the premium list be what it may, the exhibitor should make it his guide and counsellor. It should be studied thoroughly; not only the apiarian part, but all of the rules and regulations. The exhibits must fit the list—must comply with its requirements. I remember an old man who once made quite a creditable exhibit, perhaps as good as some exhibitor who received $75 in premiums, yet this old man received only one meager premium of $2.00. He felt that he was treated unfairly, but the only trouble was that his exhibits did not meet the requirements of the list.

Plan well before hand what you will exhibit, and how you will exhibit it. To illustrate, one man who had had no experience in exhibiting at fairs met me the second morning after we were on the grounds and said: "Well, I suppose that you have been planning all night just how to put up your exhibit so as to 'do me up?'"

"No" I answered, "I knew before leaving home exactly in what shape I should set up my exhibit."

"You did?" he exclaimed. "Well, that beats me. Had it all planned out before you left home? Well, well."

This planning and arranging an exhibit is half the battle. Time, and time again, have I seen an exhibitor beaten by some one who had fewer and inferior goods, but who knew how to exhibit them to the best advantage. Many a time have I heard H. D. Cutting say, in passing an exhibit, "Wouldn't I like to get in there and arrange that exhibit. Some of you fellows would have to take a back seat if that exhibit was only up in shape." And he was correct.

Have everything the very best that it is possible for you to get it. Remember that in these days it is only the very best that can secure a premium. To go to a fair with a second-grade article is only time and money wasted. Never stop with "That's good enough," or "That will have to do." It is good enough only when you can make it no better, and even then you will often find that it is only second best. Nothing takes the conceit out of a man like making exhibits at the fairs. I have been at it now for about 15 years, going to five State fairs last year, and I expect to start next week on a similar trip, and I suppose it is this experience that is largely to blame for my modesty.

But to return. Not only have everything first-class, but have it ready at least a week before you start. If you don't, you will be hurried at the last, you will forget things, not do good work, and leave home tired and illustrated, and if there is any place that a man needs to be at his best, it is with an exhibit at a fair. Have everything all ready and boxt, and each box labeled with its contents, so that you will not have to be opening box after box in a worried search for a needed article.

I remember one great, big, stout, enterprising bee-keeper, whose home is in this city, who once upon a time came up to Detroit with an exhibit. His comb honey was packt in bulk in big boxes, his honey-crates or cases in the flat, his extracted honey in bulk, and his bottles ordered of Muth to be sent by freight to Detroit. How many times he went to the freight office after those bottles I do not know. But they finally came and were washt and filled in the night. Then there were broken combs to be disposed of in some way and the drip cleaned up. The sound of his hammer kept folks awake until four o'clock in the morning, and then he lay right down on the hard floor and slept the sleep of the—exhausted, I guess.

Not only should the comb honey be packt in its exhibition cases, but the cases should be in a dust-proof case or crate with handles on the end. The extracted honey should be bottled and packt.

By the way, the nicest way of packing bottles of honey is by the use of cardboard, of the cellular style, made into partitions after the egg-crate style. It is cheap and furnisht cut up. I had about 500 bottles packt that way last year and took them to five State fairs and not one bottle was broken. A little excelsior is put in the bottom of the boxes.

Now a suggestion (you know this paper is only suggestions) about preparing bees for exhibitions. Take two combs of bees and sealed brood from the colony having the bees you desire to exhibit. Set them in a hive. Put a queen in a cage on top of the frames. Shut up the hive and keep it shut up until towards night the next day. Keep it out of the sun while it is closed. When it is opened set it by the side of the old colony. In a day or two most of the old bees, that is, the flying bees, will have returned to the old hive. Now release the queen. Do this a week or two before the bees are to go away. The day before they are to go away take them to a new stand. Shake the bees from one of the combs, returning it to the old colony. This gives an abundance of young bees that can bear confinement. The day that the bees are to go away, set the comb of bees into the little single-comb hive in which they are to be exhibited. There must be an abundance of room and plenty of ventilation. There must be room at the bottom, top and sides, and one side of the hive should be wire cloth, the other of glass. Don't take bees without a queen, as queenless bees worry more. With bees prepared in this manner I have had them build great pieces of comb, and when bees do this they are not suffering.

Ship your exhibit by freight and go with it, if you have to go in a freight car. I have done this many times and enjoy the novelty, altho I must admit that it is a little lonesome at night. This is the only way to get an exhibit around in time, (especially if you go from one fair to another) and not have your goods smasht. Take a tent and sleep on the fair grounds. When there are several bee-keepers present, all can share one tent, each bringing his bedding and some provisions, and buying when more are needed. In this way the expenses are very slight, the fare excellent, and the enjoyment supreme. I might say it is the one outing of the year with me.

There are often many little mishaps and delays and annoying circumstances. Don't let them upset you. Keep cool and look at the matter philosophically. And, above all, don't let the loss of expected premiums sour you and spoil your enjoyment. I never yet received all of the premiums that I expected to win, but, at the same time, I have often received those that were unexpected.

And when the fair is over don't get in too big a hurry to get away. The great mass of goods on the grounds have been several days accumulating, and they can't be removed in a few hours. It takes time. I have seen men fret and stew, and swear and sweat, and stay up all night trying to get away, while others who went to bed and took things coolly went out on the same train as the "fretters."

But I have written enough, and shall be glad to listen to others. W. Z. HUTCHINSON.

R. F. Holtermann—If I were going to place a limit upon the amount of honey in a display I would put the amount at 500 pounds for comb, and the same for extracted honey. Then I would have another lot of 100 pounds. Then 10 pounds in which quality and manner of putting up for market should be considered. I think that a score card is a most excellent thing. It is a guide for both the exhibitor and the judge. We can get uniformity here that we can get in no other way. I got my first ideas of exhibiting while visiting the Detroit Exposition. Mr. Hutchinson's paper is full of good suggestions. It shows that he has been there. That little point of marking upon the boxes what they contain shows that he has had experience.

Rev. E. T. Abbott—We in Missouri at one time had a larger premium list than any State except Michigan. When we first began making exhibits of honey but little attention was paid to the matter. Our markets were poor. But, as we increast our displays, the demand for honey increast. We do not want to diminish the *size* of our displays. When there is a big display people will come in and say, "Honey, honey!

why, I didn't suppose that there was so much honey in the world!" If your State fair does not offer much in premiums, never mind; make a display next year, then they will give more.

FIRST DAY—Evening Session.

Hon. R. L. Taylor, ex-Superintendent of the Michigan Apiarian Experiment Apiary, having been requested to prepare a paper, sent the following, which was read by the President:

Relation of Bees to Horticulture.

There is a widespread prejudice against the honey-bee. Why? I want to explain to you as well as I can in the few minutes allowed me, facts that go to show that the prejudice is unfounded, and that the honey-bee is the greatest friend of the fruit-grower, if not indispensable to successful horticulture.

There is in plants or flowers what answers to sex in animals. Sometimes both sexes exist in the same flower, sometimes in different flowers of the same plant, sometimes on separate plants. But whatever the plan of growth, fruitfulness depends upon the fertilization or pollination of the pistil by the grains of pollen produced on the stamen. The stigma, generally the upper part of the pistil, is a part denuded of the epidermis, toucht with a viscid (sticky) substance, and when the proper pollen adheres to this part the pollen puts forth pollen-tubes which lengthen till they reach the ovules, which completes fertilization and causes fruit or seed to grow.

In our fruits generally both pistil and stamens are present in the same flower. tho there are exceptions. Under such circumstances one's first thought, perhaps, would be that there could be no difficulty in securing thorough pollination.

But we have other principles to reckon with. Nature abhors in-breeding, and resorts to various devices to prevent it, the most familiar one being the "ripening" of the two parts of the flower at different times, and pollen from the same flower in most cases has a much less potent influence on the pistil if indeed it has any at all.

But you may ask, Are not our fruits exceptions in this matter? Let facts answer:

Prof. A. J. Cook carefully experimented with the bloom of the apple, crab apple, pear, cherry, strawberry, raspberry and clover. In some cases the experiment was duplicated or triplicated. In each particular case an equal number of blossoms were selected from adjacent branches. One lot was markt with a tag, the other surrounded by cheese-cloth. I cannot enter into details, but these are the results:

	Blooms.	Covered Fruits.	Uncovered Fruits.
Apple	40	0	15
"	75	0	3
Crab apple	200	0	3
Apple	160	2	9
Pear	140	0	7
Cherry	300	9	119
Strawberries	60	9	27
"	212	80	104
"	123	20	36
Raspberries	184	93	160
Clover (red)	10 h'ds	0	191
Clover (white)	10 h'ds	0	541

Again, in 1894, since his removal to California, Prof. Cook made similar experiments with plums, cherries and pears. Two plum trees, one cherry, and two pear trees were made use of in the experiment. On each tree three lots of blossoms were selected instead of two (as in the other case), the number of blossoms varying in each tree from 32 upward, the lots on any one tree of course having an equal number. One lot on each tree was left uncovered, the second lot was covered, but with bees introduced under the covering, and the third lot was covered, excluding all bees. All proper precautions were taken to secure reliable results. The result was that there was not a single fruit on any of the twigs from which bees were shut out. On the twigs covered with sacks, into which bees were put, there were on the plums three and five, the cherry five, on the pears six and eight respectively. On the uncovered branches of the plums were eight and five, the cherry seven, and the pears eight and eleven:

	Covered.	Bees enclosed.	Not covered.
Plums	0	3	8
	0	5	5
Cherry	0	5	7
Pears	0	6	8
	0	8	11

From one-fourth to one-twentieth only developt fruit, but this fortunately is always so.

What makes these experiments all the more favorable to the bee, is that many small insects called thrips, were noticed on the bloom inside the coverings, yet tho they must have carried pollen from anther to stigma, and from blossom to blossom, yet without so much as pollinating one pistil.

In one experiment with the plum, Prof. Cook covered a branch, and when it was in bloom, and the bees working in force on the trees, he removed the sack, and keeping watch markt the blossoms on which he saw bees work. When he ceast watching, the branch was re-covered, and at length the four blossoms alone on which he saw bees alight developt into plums.

No doubt some varieties of our common fruits are self-fertile, but none the less should cross-fertilization be sought, for the great advantage of it, even where flowers are self-fertile, is abundantly proved by Darwin and others.

It is to be noted that cross-pollination is accomplisht only by the application of the pollen of one variety to the pistils of another variety. Cross-pollination cannot be effected between two trees of Baldwins. All Baldwins are in effect one tree, so of other varieties. Hence the pertinency of the advice of Mr. M. B. Waite, endorsed by Prof. Cook:

"Plant mixt orchards, or at least avoid planting solid blocks of one variety. It is not desirable to have more than three or four rows of one variety together unless experience has shown it to be perfectly self-fertile."

In this connection I quote Prof. Barrows; he says of apples: Most varieties are practically self-sterile, and so far as we know now are completely self-fertile. In what way is cross-pollination best accomplisht? In some cases this is well done by the wind (as in *corn* and the *pine*). But with our fruits this agency must be very uncertain and ineffectual. And perhaps that fruit-blooms fail to become pollinated when the weather is too cool for insects to move goes to show the same thing. Our chief and only safe reliance for the performance of this function must be upon insects. But insects differ greatly both in numbers and activity.

During the time when Prof. Cook was making the first experiment I referred to, he made observations to determine the comparative numbers of different insects to be found upon the blossoms, and he estimated that at that time there were 20 honey-bees to one of all other kinds at work on the bloom. In his California experiments he found there were 100 bees so engaged to one of all other kinds. I think this last—100 to 1—would be nearer the rule in Michigan in the neighborhood of an apiary of any considerable size. Then if we consider the immensely greater activity of the bee over that of most other insects, darting like a shot from flower to flower, and from tree to tree, the conclusion is inevitable that we must rely chiefly for cross-fertilization on the bee.

Busy bee, pray tell me why,
 Thus from flower to flower you fly,
Culling sweets the live-long day,
 Never leaving off to play.

We know the answer so far as it immediately concerns the bee, but if that were the only reason, why does the flower that lasts but for two or three days secrete the nectar that attracts the bee, instead of the leaf, which endures for the season, and which could therefore so much better serve her? Nature made no mistake; the welfare of the bee was not the first consideration.

Notwithstanding all this, there is undoubtedly, as I stated at the outset, a prejudice against bees, and for these reasons:

1st. Because of a belief that the bees take something from the plant that will render it less productive; or something that is of value to the grower of the plant.

What I have already said shows the fallacy of the first branch of this belief, and as to the other branch of it I have this to say, that bees gather from domestic plants nectar and pollen only. The nectar of clover, for instance, can never be of any value to the farmer. A shower washes the blossoms so thoroughly that the bees do not work on them for several hours afterward. The nectar in that case, to be sure, goes into the soil, but any well-informed chemist would tell you that it has no value even as a fertilizer. The pollen, in like manner, if ungathered, would go into the soil, and there it would have some value as a manure, equal for that purpose to perhaps about the same quality of bran, and in no case could it amount to more than a few pounds from a large farm.

Some are so constituted that they could bear the loss with equanimity if they knew it was occasioned by bees from the woods, but would be grievously disturbed if they were conscious that it was carried to the hives of a neighbor. But I have never known a fruit-grower made on that plan.

2nd. Because of a belief that bees are continually moved by a desire to sting. This is a great mistake. Bees absolutely never volunteer to sting when absent from their hives, but if caught in the hand or hair, or otherwise, they will try to sting, of course. But bees are tolerably quick in resenting any disturbance that threatens injury to their homes, yet with fair discretion they are wonderfully easy to get along with. But if I were not familiar with bees I would not kick over a live hive in summer time, nor operate a heavy road-scraper on dry, stony ground within three or four rods of an apiary, nor hitch a team where bees were passing and repassing (even tho I were one of that class whom bees never sting), without taking the advice of some one skilled in the management of bees.

3rd. And last, because of a belief that bees do injury to ripe fruit.

There is no question that during times of dearth of nectar in warm weather, that bees seek to gather the juices of broken fruit, and some fruit-growers contend that they actually cut through the skin of the grape—some are very positive, affirming that they know they do—that they have actually witnest the operation. I feel some sympathy for this class, since once, tho familiar with the arguments against it, I was more than half inclined to believe that in some way bees sometimes forced open the skin of grapes. For years I have taken great pleasure in raising a considerable variety of grapes, and when I sometimes saw the bees crowding their heads between the berries of fine, compact and apparently perfect bunches of Delawares, and afterward found that many of the berries were suckt dry, my faith in the bees inability weakened greatly.

Further investigation showed that while ruptures of the skin of the Duchess grape were plainly seen, none were ordinarily evident in a ruptured Delaware. In short, I found that grapes of different varieties varied in their manner of cracking—some cracking lengthwise, and others crosswise or diagonally.

The cracking is, I think, caused by the crowding of the berries upon each other, which is induced by their swelling, owing to abundant moisture. At least so far as I have observed, the cracking is confined almost entirely to compact clusters.

Of the many varieties I have in bearing, the work of the bees has usually been confined almost exclusively to the Delaware and the Lady; but on account of the wetness of the season, the Duchess and the Salem were added to the list last year, and these are the ones to which cracking was almost exclusively confined. It was a significant fact that the work of the bees was confined to the compact clusters of these varieties, while the loose clusters neither crackt nor were visited by bees.

In all these, except the Delaware, the cracks were plainly seen on the visible part of the berries. In the Delaware the cracks are out of sight, being transverse, and near the stem end.

In July last, the rainfall being so great that more than the usual amount of cracking was anticipated, I decided to determine, if possible, whether grapes from which bees were excluded, but still left on the vines, suffered in any different degree from those to which the bees had free access. To shut out the bees, paper sacks were used, folded over the clusters and pinned. More than a thousand sacks were put upon grapes of the 13 varieties I am about to mention. Many of these become ripe early in September, and by the 24th all were ripe except Jefferson and Iona.

In the case of the following, there was no damage either inside the bags or out, viz.: The Agawam, Eaton, Eumelan, Iona, Lindley, Niagara and Ulster. Brighton suffered none in the sacks, little out. The Diamond, a little in and a little out. The Jefferson, a very little in and the same out. The Delaware, Duchess and Salem suffered much in, and somewhat less out.

In the case of the three kinds much injured, it became constantly more evident that the damage to those in the bags was greater than to those to which the bees had access. This was especially true of the Duchess and the Delaware. So evident was it that the reason of this lay in the fact that the juice oozing from the crackt grapes in the bags was communicated to contiguous sound grapes, causing weakness of skin, cracking, and incipient decay, that by the middle of the month of September I hastened to remove the bags from these varieties, that the bees might gather the juice from the broken grapes.

To my mind, the conclusion is inevitable, that not only do bees not injure grapes, but that by gathering the juices of crackt ones they prevent decay, and thereby the destruction of sound grapes. R. L. Taylor.

Dr. C. C. Miller—I don't believe that there is much good that can come from our discussing this paper, but it would do lots of good if it could be laid before the horticultural class. It might be put in our home papers, or brought up at our farmers' institutes, and do good in that way.

Rev. E. T. Abbott—There is one more point that ought to be brought out, and that is that secretion of nectar stops as soon as the blossom is fertilized, the same as the extra energy of a female animal is turned to the production of a new life in reproduction.

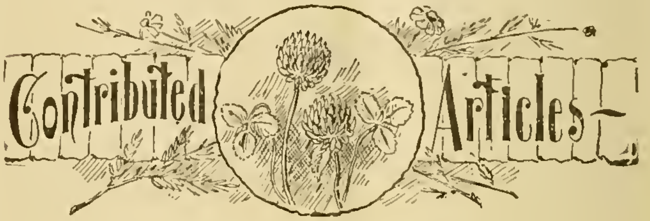
E. R. Root—If no one else does anything about this matter, we will get out Mr. Taylor's paper in the form of a leaflet, and give it away.

Mr. Abbott—Can't this association do something to prevent the spraying of trees while in bloom?

R. F. Holtermann—We now have in Ontario a law against the spraying of trees while in bloom. The outer covering of the fertilizing part of blossoms is very tender, and to spray when in bloom, even with water, may work an injury, hence those who spray when the trees are in bloom are destroying their own fruit.

W. Helm—In Ohio the experiment stations are issuing bulletins in regard to spraying, and but very little of it is done out of season.

(Continued next week.)



Wintering Bees in Snow-Banks.

BY G. M. DOOLITTLE.

I am askt to give an article in the American Bee Journal on wintering bees in a snow-bank, the one desiring this article wishing to know if he can winter bees successfully by setting them near a hedge that he has at one side of his apiary, over which the snow usually drifts so that there is a continuous bank of snow there from early in December till the first of April, or later. He says he has been advised to put them in this place, but before doing this he wisht the advise of others.

Years ago we used to hear more about wintering bees under snow than we do of late, and from the general advice of that time I was led to test the matter, as nearly every one said that bees wintered well under snow. But my experience was not in accord with this, however, as I found that if the hives were covered from half to two-thirds of the way up the brood-chamber they wintered well; but if the hives are covered completely over, and stay so for any length of time it is a positive damage to the bees, and worse than no snow at all.

For several winters, when I first began to keep bees, I wintered my bees in the cellar, but not attaining the success which I thought was necessary, I concluded to winter them on the summer stands during one winter, and as the snow fell sweep it up around the hives. I did this, and by the forepart of December I had the hives covered from sight. This made little snow mountains all over the yard, and I was so enchanted with the thing that I wondered that I had never thought of it before. At the end of about a month we had a thaw, when I lookt at the bees and found that their warmth had so thawed the snow that a cat or rabbit could easily go all around between the hives and the snow. I was much pleased over the apparent success, and concluded that I had now found just the way to winter bees. The bees appeared, however, to be rather restless, for upon raising the covering some flew out and were lost in the cold air, instead of being quiet, as they usually were in the cellar. As the next day was fine they all had a cleansing flight, and all appeared well.

The winter now changed so that instead of having snow for most of the time as we usually do, there was little or no snow the rest of the time till spring opened. At that time I found that I had lost fully one-third of my bees, while those that were left were not at all strong in numbers. I thought this was owing to our almost snowless winter, and I believed that, if I could have had snow to cover them all winter, no loss would have occurred. One thing I noticed, however, which was that all the hives which I opened at the time of the thaw had brood in from two to three combs, while in April scarcely a bit of brood was to be found in any hive. I reasoned that had the snow continued, brood-rearing would have been kept up, and in the spring the hives would have been well stockt with young bees instead of the depopulated colonies I had. The next winter put an end to these thoughts, however, for this time we had snow, so I kept them covered the whole winter.

About the middle of winter there came a warm day so the bees could fly, and upon examination I found several hives that had brood in four to five frames, while others not so deeply buried did not have half as much. I noticed that the bees in those hives which had the most brood were so heavily loaded with excrement that they were scarcely able to fly, while those with but little brood spotted the snow but very little. But instead of seeing my mistake I figured how many bees would hatch out in the hives having the most brood, during the next 21 days, and this brood would increase as the time went by, so that by early spring I would have a rousing colony in each of these hives having the most brood.

Cold weather with more snow came and held till into March, when we again had a day that the bees could fly. How eagerly I shoveled out the colonies having the most brood when they flew before, expecting to find their hives full of bees, but instead I found nearly all of the old bees dead on the bottom-board, and the young, fuzzy bees clustered closely together where they had hatcht before the old bees died, cold in the embrace of death. Not only this, but these colonies had consumed nearly all the honey in rearing this brood, so I had nearly a total loss except the combs.

When the working season arrived I found I had lost nearly two-thirds of my bees, and those left were not strong enough to take full advantage of the honey-flow when it came. The difficulty in this locality seems to be that, as soon as the hives are covered with snow, the warmth from the ground, combined with the warmth of the bees, makes it so warm that the bees become uneasy, go to breeding, consume large quantities of honey, thus using up their vitality, which causes them to die of old age during February, March and April, while the young bees are not equal in strength and vitality to bees hatcht in September and October to withstand the cold, so spring dwindling and death are the result.

In the above I have given what I have since found in every case which has come under my notice where bees have been drifted under snow for any length of time. Since the winters above mentioned we had a winter in which we had very deep snow, and owing to a peculiar wind and a new fence which I had put up many of my hives were in snow from 5 to 10 feet deep. I tried as far as possible to keep the hives shoveled open, but I completely lost track of 10 colonies, of which not one was living the first of May.

From the above experience, during 18 or 20 years, my advice to all would be to go slow in this matter, who are not sure that the plan of wintering bees under snow is a success with them. Try only a few at first, till you know for certain that you are right, and then if your experience says the plan is good with you, the whole apiary can be used.

Onondaga Co., N. Y.

⁂

The National Bee-Keepers' Union.

(*An open letter to the Advisory Board and to the Members in general.*)

BY WM. MUTH-RASMUSSEN.

Nearly a year has past since the vote on amalgamation was taken, and it will soon be time for the next annual election—the only time for a general decision, as no meetings are held by this Union.

During the past year the defeat of the amalgamation proposal has been discust and commented upon in the bee-papers, and the members have had time to think the matter over, and perhaps to change their minds in regard to the desirability of amalgamation. I wish to ask the Advisory Board if anything is being done or contemplated in regard to having a new vote on this subject taken at the ensuing election? As the United States Bee-Keepers' Union has assumed the task of defense—the only object of the National Bee-Keepers' Union—I fail to see the use of supporting two associations for one and the same purpose. The new Union has other objects, all of great importance to bee-keepers; but that is no reason why the subject of defense could not be handled just as effectively by the new as it has been handled by the old Union.

The National Bee-Keepers' Union has for several years had more money on hand than there was any need of, and has remitted to members in good standing their annual dues. Whether the dollar will be called for or not at the next annual election, I do not know. But I do know, that if I have only one dollar to spare, I shall perfer to hand it over to the new Union and take my chances for defense through this, if necessary.

It would have been desirable if this matter could have been discust and decided upon before the Buffalo convention, but as nobody has brought the subject up, I now make this proposition:

Let the Advisory Board call for another vote on amalgamation, on the following basis:

1st. The National Bee-Keepers' Union to be dissolved.

2nd. The funds on hand, together with all other belongings, to be turned over to the United States Bee-Keepers' Union.

3rd. The money now in the treasury of the old Union to constitute the defense fund of the new Union, this fund not to be used for any other purpose.

4th. Subject to approval by the United States Bee-Keepers' Union.

I would suggest that 25 per cent. of each members' annual dues be apportioned to the "defense fund," provided that at no time shall this fund exceed $500, and whenever it reaches this amount, the said percentage of dues shall go into the general fund, used for other purposes than defense.

I hope that the Advisory Board will promptly take this matter up, so that it may be decided at the coming election. Discussions are in order, but time is brief.

Inyo Co., Calif., Nov. 13.

⁂

Paraffine Paper and the Danzenbaker Hive.

BY F. DANZENBAKER.

My attention has been repeatedly called to the article by F. L. Thompson, on page 677, intimating that I attributed my success to the use of paraffine paper. Since then Dr. Miller and Mr. E R. Root have shied their castors in the ring. Now I most empatically deny giving the use of the paper any such prominence. Any other covering equally air-tight and warm as wax or paraffine, will do as well. Its cheapness is *its chief* recommendation. It is furnisht for 2 cents, with other goods, and can be used over again if desired, Mr. Thompson to the contrary notwithstanding; and when used as designed with my super and sections during the surplus season, the sections are practically free of propolis, sufficiently so to warrant its use in the time alone saved in cleaning the sections, many times over, for all the fussiness of putting it on, but it may often make no difference in the quantity and quality of the finisht sections.

One sheet of the paper was sent out last season with each super free. It was my purpose to send two sheets, which will be done in 1898, free of charge, to give all a chance to test it for themselves. The thin 2-cent sheets are not claimed to last as long as thicker ones might, but I prefer them to put on clean as needed, just as I use new sections rather than old ones.

If any using the paper last year or this feel that it is not worth all it cost them, I stand ready to refund the same.

I notice on page 715, Mr. D. N. Ritchey, in advocating small hives for wintering, inadvertently does injustice in alluding to the Danzenbaker pattern as too expensive for general use, but will try them for 1898. While my brood-chamber is as compact as possible to be, the net comb surface and inside capacity from bottom to ceiling are the same as the 8-frame dovetailed hive. The inside fixtures are strong and firm when put together—nothing flimsy about it; 20 of them in the flat, with slat-cleated bee-space separators, two paraffine mats, and nails, are sold for $24; while 20 8-frame dovetailed hives furnisht with plain separators are $17.40; 20 of these will hold 480 4¼x4¼ sections, that when filled with honey are selling here now at 12½ cents each, or $56; 20 of my hives hold, at 32 sections each, 640, that are selling to grocers from the same house at 15 cents, making $96—a net difference of $40 in a single story of sections on the 20 hives, while the difference in cost of the same is only $4.60; all is of the best possible work and material.

As some dealers charged $2.00 each for my hive, it may be this has caused the complaint. Mr. Ritchey, or any one else, ought not to start the impression abroad at the very time when the best bee-men are considering whether they shall change hives, that mine is "too expensive."

[We give the foregoing here for the reason that Mr. Danzenbaker felt that we had done him an injustice in publishing what we did from the pens of Messrs. Thompson and Ritchey. Of course, Mr. D. must expect for his hive criticism, and comparison with others.—EDITOR.]

The American Bee Journal

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GEORGE W. YORK, - Editor.

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United States Bee-Keepers' Union.

Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

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Editorial Comments.

Kind Words for the Bee Journal are constantly received at this office. We wish we could publish them all, but some of them are so strongly commendatory that it would hardly do to give them to the public. However, we wish to say to all who have so kindly exprest their appreciation of the Bee Journal and its contents, that it is a great encouragement to us, to know that our best efforts are being valued by our readers. We shall continue to strive to merit the approval of all who want a bee-paper that is *all bee*-paper, and the best that we can publish; and wish hereby to extend our sincerest thanks for the kindly words and feelings indicated by many letters that have come and are coming daily to us.

◆

Death of Mr. De Layens.—Mr. Chas Dadant has kindly sent us the following paragraph concerning the death of Mr. George DeLayens, a noted French bee-keeper and inventor:

> France has just lost her most famous apiarist, Mr. George De Layens, who died at Nice, from a stroke of apoplexy, Oct. 23, 1897. Mr. De Layens was a single man. He was born at Lille, Jan. 6, 1834. When young, he learned the mechanical arts and made several inventions. He then studied botany and bee-culture. He publisht several works on these sciences, some of them in collaboration with his cousin, Gaston Bonnier, professor at the French Academy of Sciences, of Paris. The "De Layens Hive" is one of the most popular hives in France. He was very plain in his manners; his hands were always open to relieve the needy, and in his will he gave most of his estate for purposes of benevolence.
>
> CHAS. DADANT.

Mr. De Layens had gone to Nice to pass the winter months for his health, and was continuing his botanical works, profiting by the fine weather in taking photographs of plants.

Uniting the Two Unions.—It has been quite awhile since anything has been said in these columns about amalgamating the two Bee-Keepers' Unions. Perhaps everything was said that needed to be said—and likely a little more than was necessary, pro and con. But in the November American Bee-Keeper the subject is toucht upon in an editorial paragraph which we give here:

> "The question of amalgamating the National and the United States Bee-Keepers' Unions, tho defeated by decree of the National's members, is still quite a live one, and as it is becoming more thoroughly understood, all signs now point to the ultimate consummation of the project. There seems indeed to be no good reason why the two societies should not join hands, and in their broader field of labor, under one constitution, become a power of good to the bee-keeping fraternity. 'In union their is strength;' uniting Unions ought to develop Herculean power."

Just so. We are still of the opinion that the two Unions should get together the coming winter, and prepare for doing some telling work along the line of the prosecution of adulterators of honey. Nothing else, we believe, would so much aid bee-keepers all over this great country of ours as a successful attempt in enforcing some of the State anti-adulteration laws already on the statute books. Why not all get together and form one strong body, then in solid phalanx march against the enemy?

It will be found that also Mr. Wm. Muth-Rasmussen, in this very number of the Bee Journal, urges a uniting of the two existing Bee-Keepers' Unions. Better do it soon, and begin the work so necessary to be done in the interest of every honey-producer of the land.

◆

Exporting Honey.—The Pacific Bee Journal mentions a carload of amber honey shipt to Germany—the second shipment there—and the intended shipment of a number of cases experimentally to Glasgow, Scotland. Likely a good thing for the Californians, and yet it seems a pity to have good honey leave this country at 3½ cents when millions of our inhabitants never taste honey.

◆

New Honey-Dealing Firms here in Chicago are sending out type-written letters something after the Horrie-Wheadon pattern, tho not quite so glaringly crooked. But we advise bee-keepers to be careful, and not be caught in a trap. Some of these firms offer to buy for cash, and ask for prices on honey based upon that consideration. We have made enquiry concerning one firm, and learn that they have no financial standing, having "no capital as yet invested in the partnership."

◆

The Old Union and Dr. Besse.—At the recent Northwestern bee-convention, here in Chicago, the subject of sweet clover came up, and also whether or not either Union should aid a bee-keeper in case the authorities, on the ground of its being a noxious weed, destroyed his sweet clover, or some question to that effect. Dr. Besse was present, and when some one askt whether the National Bee-Keepers' Union was helping him, Dr. Miller thought not; but some one having reported the matter to Manager Newman, who wrote Dr. Miller, the latter sends us the following:

A RETRACTION.

> At the late Northwestern convention at Chicago, I said the National Bee-Keepers' Union had done nothing to help Dr. Besse, and to the effect that if the Manager had done anything of that kind it was, so far as I was informed, without consulting the Advisory Board. Dr. Besse corrected me on the spot, as to nothing having been done for him, and Mr. Newman informs me I am in error as to the entire statement. I regret exceedingly having made a statement that might do injustice to Manager Newman, and hasten to say so in a manner more public than that in which the statement was made. As a matter of fact, I learn that Manager Newman has already

paid Dr. Besse $75 in cash, besides giving him points and assisting him in every possible way. C. C. MILLER.
McHenry Co., Ill., Nov. 23, 1897.

Altho we did not express ourselves at the time on the subject—whether or not the old Union was helping Dr. Besse—we were surprised to learn that he had received much aid from that source. But we are glad of it, for we have held all along that he should have such help.

Of course, any one who was present when Dr. Miller, as chairman, said he thought no aid had been given Dr. Besse, knew well enough that he spoke from his honest belief, and intended no injustice to Manager Newman or anybody else. It seems to us, in view of what appeared in these columns the past year bearing on Dr. Besse's case, he should have been quick to acknowledge publicly the full extent of the aid received. Up to the time of the Northwestern convention *we* did not know that he had received any substantial help from the old Union, and had any one askt us the question we would probably have intimated that *we* thought he did not. So we are pleased to learn that so much help has been given him, for we believe it is a just case.

◆

To Colorado Bee-Keepers.—Mr. R. C. Aikin, President of the Colorado State Bee-Keepers' Association, sends us this notice which he desires every Colorado bee-keeper to read, remember, and act upon:

> The Colorado State Bee-Keepers' Association will hold their annual convention in the State Capitol building in Denver, Jan. 17, 1898. Let every apiarist in the State who can, be at that meeting. Whether you can be at the meeting or not, write to me just as soon as you read this. First, I want your *name and address* very plainly written. It is very likely that the Association will have something to communicate to you that will be to your and others' interest, so we want your name and address, sure. With the address tell me what topics you want discust at the meeting, or any other business you wish transacted.
>
> Any others—individuals or associations—having business with this Association will please communicate with our State Secretary, Mr. Frank Rauchfuss, Elyria, Colo., or with myself.
>
> Loveland, Colo. R. C. AIKIN,
> *Pres. Colo. State Bee-Keepers' Association.*

◆

The Minnesota Convention of bee-keepers will meet in Minneapolis, at the New Court House, Wednesday and Thursday, Dec. 8 and 9, 1897. The Horticultural Society convenes on Tuesday, Dec. 7, and continues for four days.

Dr. E. R. Jacques, of Crystal, Minn., is the Secretary of the bee-convention, from whom any further information can be obtained, if desired.

There should be a large attendance of bee-keepers at this convention, and if possible take in the horticultural meeting also.

The Weekly Budget.

MR. G. M. DOOLITTLE, in an article in American Bee-Keeper for November, says swarming will be at its height by the time that page meets the reader's eye. Must be a cog loose somewhere. Can hardly be in Doolittle's head, whose machinery is always so tightly geared.

MR. H. DUPRET, of the Province of Quebec, Canada, when renewing his subscription for 1898, wrote thus:

"I cannot understand how you can give us weekly so much sound bee-literature for so little money. The department, 'Beedom Boiled Down,' I think is a success, and must require a good deal of reading."

"MR. M. H. MENDLESON, of Ventura Co., Calif., has 900 colonies of bees, and his crop of honey this season amounts to about 60 tons."—Pacific Bee Journal.—Whew! but doesn't that almost take one's breath away? 120,000 pounds! Probably a good part of it was bean honey, which C. A. Hatch in the same paper says is white and fine flavored, but inclined to candy quickly.

DR. MILLER, of McHenry Co., Ill., writing us Nov. 24, said:

"Cold. Most of the bees are in the cellar, and Philo is getting the balance in to-day. They had a good flight Saturday, and will be in good condition for winter. I'm hoping they'll remain in good shape."

MR. W. T. RICHARDSON, President of California Bee-Keepers' Exchange, when renewing his subscription to the Bee Journal, and also paying his membership fee to the new Union Nov. 16, wrote:

"I am greatly interested in the object of the United States Bee-Keepers' Union, and want my mite to go for the good of the cause. Your work in bringing forward and showing up humbugs in the honey market, through the Bee Journal, is greatly appreciated by me."

MRS. MATE L. WILLIAMS, of Wadena Co., Minn., when renewing her subscription, wrote thus:

"The honey harvest in this part of Minnesota was abundant, and we call our honey the 'finest in the world,' gathered almost entirely of wild flowers. It is a light golden color, and thick as thickest syrup. If I thought the editor would care to see it, I would send him a sample."

Why, certainly, we are always willing to "sample" the "finest honey in the world," no matter from what part of the world it comes.

MR. EDWARD B. GLADISH, Secretary of the Leahy Mfg. Co., of Missouri, has recently met with very great affliction, in the loss, by accident, of one little daughter and the injury of another child. Our sympathy goes out to Mr. and Mrs. Gladish in their sore bereavement. The Progressive Bee-Keeper tells about the sad accident in this paragraph:

"We had a very sad accident at the factory on the evening of Nov. 3. Three little children (two of Mr. E. B. Gladish's and one of a neighbor) had gone to one of the lumber-sheds to play. No one knew they were there, or they would have been sent home. While passing at some distance, a scream and a falling of lumber attracted attention. It seems they had been trying to climb upon a pile of boards about 4 feet high, and it had fallen over on them, crushing the life out of one, while another had a leg broken, and Clifton Gladish was more or less injured. The one killed was little Florence Gladish, a bright, sweet child, aged 4 years and 1 month."

DR. WM. R. HOWARD, of Texas—the author of the valuable booklet on Foul Brood—we regretted to learn through a letter from him, dated Nov. 16, had met with a heavy loss by fire. He tells us about it in the following:

> EDITOR YORK:—On last Aug. 7, I lost my dwelling, laboratory and scientific library by fire, since which time my work has been in the laboratory of the Medical department of the Fort Worth University; but now the College is open and the laboratory there is workt to its utmost in the branch of Medicine, that I have had no time to work. At last I have my laboratory refitted with the best apparatus of precision that is made. I have the largest and most thoroughly equipt private laboratory in the South and West; the building is separate from other buildings, purposely built and arranged—microscopical, chemical and bacteriological—a regularly arranged biological laboratory. I am rebuilding my residence, and hope to be in it by Christmas. We are now temporarily occupying the laboratory building as a residence, until our house is finisht.
>
> I hope for you a prosperous winter, and a doubling of your subscription list. WM. R. HOWARD.

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

BEEDOM BOILED DOWN.

Honey and Wax of Victoria.—T. L. Chambers estimates from statistics of the custom-house that Victoria—a part of Australia about as large as Minnesota—produces annually 20 tons of wax and 400 tons of honey. A good season, such as 1895, doubles the average. Most of the wax is exported.—Australian Bee-Bulletin.

A Looking-Glass has been for a long time one of the things recommended as a help to get a runaway swarm to settle. Another use has been found for it. The bee-journal of Alsace-Lorraine advises its rays to be thrown into the entrance of a hive somewhat shaded, when at the time of the first spring flight the bees of this hive are slow to come out.

Large Frames.—German bee-keepers are not of one mind as to size of frames. N. P. Kunnen pleads for a large frame, 16x16 inches none too large (70 per cent larger than the Langstroth frame), and doesn't agree with Dzierzon that there is danger of too large colonies. As advantages of large frames are urged: 1. Rapid development of brood in spring. 2. Strong colonies at the advent of harvest. 3. Diminisht danger of chilled brood from sudden cold-spells in spring.—Luxemburgischen Bienen-Zeitung.

Thick vs. Thin Syrup.—L. A. Aspinwall, in Review, strongly advocates the use of thick syrup for feeding. Somnambulist, in Progressive, says he likes the theory of "concentrating the food and thereby the storage of it, by reason of which the colony remains more impact, conserving its vitality," but in practice he can't make it work—bees won't take it. Better compromise, brethren. When you have been so negligent that feeding must be late, give it to them thick; at the same time promising that next time you will feed so early that you can use half water. Then if there is anything in the chemical change made by the bees that some talk about, you will have the advantage of it.

Box-Hives.—It strikes rather strangely on an American ear to hear bee-culture in box-hives, perhaps more strictly in straw hives, defended and practiced in part by some of the ablest bee-keepers in Europe. Especially is it claimed that in some localities movable hives are not the appropriate thing. Lebrecht Wolff says in Centralblatt: "For the average bee-keeper, and for those who cannot devote their entire time to bee-keeping, movable-frame hives are not suited, because too often they tempt to manipulations which turn out to be an injury. With straw hives, the bee-keeper *cannot* go into the hives, so he cannot commit the great mistakes that are the order of the day with movable-comb hives."

Honey-Cost of Wax.—Doolittle says in Progressive—"What Doolittle?" did you say? Among bee-keepers there is only one Doolittle, the unequaled and unapproachable G. M. Now please don't interrupt again. Doolittle says 20 pounds of honey must be fed to receive in return one pound of wax, while the same amount of sugar syrup will give nearly a fourth more wax; but less than 10 pounds of honey will make a pound of wax when the bees have access to the fields in a good honey-flow. This seems to be one of the questions almost impossible of answer, the present views as to the amount of honey for a pound of wax during a honey harvest running all the way from 15 pounds down to nothing.

Honey-Cakes.—Much is made of what the Germans call *lebkuchen*, in the fatherland. They are manufactured in large quantities, keep an indefinite time, and one of the treats the children expect when the *vater* comes home from the fair consists of these same. They are somewhat inappropriately called gingerbread in English, as there is no ginger in them. F. L. Thompson has been getting some recipes, which appear in Review. Here is one of the simplest:

Two pounds of honey is brought to a boil with ½ pint of water, then taken from the fire, and while still warm mixt with 2 pounds of flour. The resulting dough is kneaded well and then set to cool for some time. After some days (the longer the dough stands the better), it is put on a board, and three yolks of eggs, with flour, stirred in, and plump 1¼ ounces bicarbonate of soda added, previously dissolved in water. The whole is then well mixt. Next are added according to taste, 2 pounds sugar, some crusht cinnamon, cloves, citron and chopt almonds; the whole is well workt, rolled out to a finger's thickness and laid on a tin, or put in a mold, and baked in the oven.

Monthly Winter Consumption.—The Bienen-Vater quotes afresh a report given in 1896 of the monthly loss of weight as ascertained at about 30 stations during the winter of 1895-96. Here are the results in pounds, the colony consuming the least being given, the one consuming the most, also the average:

	Least.	Most.	Average.
November	0.00	3.15	1.32
December	0.55	3.94	1.32
January	1.19	7.70	1.98
February	1.59	6.16	3.08
March	1.76	12.13	5.28

From Nov. 1 to April 1, the greatest loss by a single colony was 22.05 pounds, the least, 6.38; the average, 12.32.

Production of Wax.—Abbe Dubois has an interesting article in l'Apiculteur anent the voluntary production of wax. At the head of those who maintain that bees produce wax voluntarily when it is needed, he places Dzierzon, Berlepsch and Sartori. As leading those who believe that wax is produced involuntarily whether needed or not, he places Langstroth, whom he styles "the Dzierzon of America." Abbe Dubois himself takes a middle ground. When bees consume more than they need or use for other purposes, then it is secreted as wax. Generally this results in the production of wax when needed, but not always. When bees swarm, they load up with honey. If the swarm is put on empty combs, the honey is put into the cells and little wax produced. If no combs are present, the bees retain the honey, and wax is secreted. In winter, if bees are excited by disturbance to gorge themselves, scales of wax are produced, altho not used. His general conclusion is that it is a dead loss of wax to give the bees no chance to build comb in time of harvest, but to allow them to build too much is at an expense of honey, not compensated by the wax produced.

Honey as Food is the name of a 24-page pamphlet, 3¼x6¼ inches, which we are now printing for general distribution among those who should be users of honey. It is just the thing for bee-keepers to hand to every one of their customers, and also to those whom they would like to have as customers. It is very handy in size—just right to go into an ordinary business envelope. It contains 12 illustrations, five of which are somewhat comic, and help to make it attractive. There is a blank space for your name and address. About ⅓ of the pamphlet was written by Dr. Miller, and then we added thereto many new and valuable honey recipes—for cooking and for medicinal purposes. In all, it makes a neat little pamphlet. Send name and address and we will mail you a sample of "Honey as Food."

Prices for quantities, postpaid—25 for 30 cents; 50 for 50 cents; 100 for 85 cents: 200 for $1.40. By express, not prepaid, 500 for $3.00; 1,000, $5.00.

Novelty Pocket-Knife.—Dr. W. B. House—the noted Yellowzone doctor of Michigan—sends us a fine testimonial for the Novelty pocket-knife which we are offering on the last page of the Bee Journal. Here is what he says:

Dear Bro. York:—I want to testify regarding your "Novelty" pocket-knife. During the ten years that I have been coroner in Chippewa county, I have been astonisht at the large proportion of cases in which it has been wholly impossible to identify bodies. Over and over again I have buried bodies that were, and still remain, unidentified. But the advertisement of your knife brings to mind another case that would have been placed with the unknown dead but for one thing—in his pocket was one of these "Novelty" knives, bearing his name and address, thus enabling me to at once obtain communication by wire with his father and wife, in Bay City. This corroborates the statement in your advertisement regarding its usefulness in this respect.

Every person should always carry some easy and positive means of identification.

Yours very truly,
W. B. House.

We have carried one of these "Novelty" pocket-knives for several years, and a great many of our readers have them also. But we should be glad to supply all. It is a very neat and handy knife, as well as a good "identifier" in case the owner gets "lost, strayed or stolen." Better have one of them. See last page for description, etc.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Small Hives for Wintering.

D. N. Ritchey's remark on page 715 made me look back to see what I had said on page 630. There I found I had said, "But you're not going to winter those bees in a 6-frame hive, are you?" At first thought I could not imagine what could have induced me to object to their being wintered in a small hive, for certainly their chances for wintering would not be bettered by putting them into larger hives; but a moment's thought showed that the trouble came from my lack of familiarity with the English language sufficient to make myself clear. What I meant was that a colony that had been kept the season in a hive 8 inches wide, containing 6 frames, would hardly be strong enough to winter successfully. If Mr. Ritchey means that he puts his colonies on 6 frames for wintering, then there is nothing unusual in that; but if he has successfully used hives for four years that are only 8 inches wide and contain only 6 frames, then I'm decidedly interested to know more about it, for from a short acquaintance with Mr. Ritchey I think he knows what he's talking about. If you're using hives that never contain more than 6 frames, Mr. Ritchey, please tell us all about it—how strong colonies get, their yield, whether you have to feed in the fall, and whether you prefer them to hives having 8 or more frames, and if so, why? C. C. M.

Buckwheat and Clover in Mississippi—Feeding Cane Syrup.

1. Will buckwheat do well and yield honey in South Mississippi, 70 miles from the Gulf of Mexico? How about clovers? I think we have the white clover here. Will sweet clover do anything here?

2. Would it do to feed bees on pure ribbon cane syrup that has no chemicals in it? How should it be fed? I'm suffering from my bees visiting two cane-mills to some extent.

3. How many acres of buckwheat should I sow for 50 colonies of bees to work on? and what time should it be sown? MISSISSIPPI.

ANSWERS.—1. As to the plants that flourish in any given place, I'd rather have the opinion of an intelligent planter of experience in that locality than of the most experienced beekeeper in some other part of the United States. I have an impression that buckwheat does not succeed well in Mississippi, but I may be entirely mistaken. I think I have seen favorable reports of sweet clover in Mississippi.

2. Such syrup might be safely fed in spring when bees are flying every day; but it should not be fed at any time when it would go into surplus honey, nor in fall for winter stores. It may be fed in any way that liquid food is given to bees, either in the hive or in the open air.

3. It is a very difficult thing for any one to give an exact answer as to the amount of honey to be obtained from a given plant on a given area. M. Quinby, who in his day did so much for bee-keeping, said an acre of buckwheat would yield 25 pounds of honey in a day. If that be correct, 50 colonies of bees might take care of 10 or more acres.

A Beginner's Experience—Clipping Queens.

I have 5 colonies—4 Italian and 1 black. I began in August with about a teacup of black bees and gave, all told, two frames of brood from my Italians. The first week in September the queen and drones hatcht. I now have a very fair colony of bees, but will have to feed them some. The first week in September I hived a runaway swarm of black bees; there were less than a quart of them. I gave them one frame of brood and some empty combs. They had a black queen and I have not tried to rear an Italian for them. I have them now strong enough to go through the winter by feeding.

This is my first year with bees, and I have had neither papers nor books on the subject, yet I have reared both queens and drones out of season.

My bees are in the orchard over 100 feet from the house. Would you advise me to clip the queen's wings to prevent the swarms leaving or clustering high next spring, or not? If so, had I better clip them now, or wait till they begin to fly in the spring? I never saw any one clip a queen's wings, how is it done? TEXAS, Nov. 7.

ANSWER.—You will probably find it an advantage to have your queens clipt. If you are not on hand to see the swarm issue, sometimes a clipt queen will be lost, but it is better to lose a queen than to lose both bees and queen.

Better wait till spring. Not so many bees are then in the way of finding the queen, and there is no advantage in having them clipt sooner.

A queen has four wings, a large and a small one on each side. It will be sufficient to cut off two-thirds of the large wing on one side. It is better to cut on one side only, for a queen can make a better stagger at flying with both sides alike then when only one side is cut. On account of seeing at a glance whether a queen is clipt or not, it is better to cut off both wings on one side. G. M. Doolittle uses a small blade of a pocket-knife, very sharp, holding the wing with the left hand over the hive, letting it drop on the frames as the wing is cut with the right hand. It seems easier to me, perhaps because I'm accustomed to it, to use a pair of scissors, and perhaps this is the practice of most clippers. Get the queen between the thumb and finger of the left hand, her head facing toward the the left, and with a pair of lace scissors, or any scissors that are rather small toward the points, cut off one or both wings on one side.

Having no experience in clipping, you might find it of advantage to get the Monette queen-clipping device, which is spoken of in the highest terms by some who have used it. You can can get it from the office of the American Bee Journal for 30 cents, or you can get it free by sending in a new subscriber.

Building an Adobe Bee-House.

I have 11 colonies of Italian bees, and am a novice and wish to fix for extracting as I think it will be easier for me as I am working out by the month. How shall I go to work? I could make an adobe house of any size necessary, walls to be 12 inches thick, or more, and keep the implements etc., in it, and go at proper intervals to extract. If I do not get them in a house the natives will steal both bees and honey. NEW MEXICO.

ANSWERS.—If I understand you correctly, you want to make a house in which you can fasten your bees. Adobe being cheap and lumber high, I think I should try the adobe. As you say your heavy winds come from the southwest, it might be well to make a building to run from southwest to northeast, with a door at the northeast end. The width of the building depends somewhat on the size of the hives. Make it wide enough to take a row of hives on each side with room for you to pass between the two rows. One row would have its entrances to the northwest, the other to the southeast. The length, of course, would depend on the number of hives you expect it to contain. In front of each hive should be left in the wall a porthole perhaps 4 inches wide and 2 inches deep. Then in some way you must close all between the port-hole and the entrance to the hives so that no bees can get out into the house. Your diagram seems to inquire whether you should build a square or a circular wall, but you will see that for the sake of economy in room the entrances are to be on two opposite sides, taking two rows of bees, so your building will rather be long or oval.

Langstroth on the Honey-Bee, revised by The Dadants, is a standard, reliable and thoroughly complete work on bee-culture. It contains 520 pages, and is bound elegantly. Every reader of the American Bee Journal should have a copy of this book, as it answers hundreds of questions that arise about bees. We mail it for $1.25, or club it with the Bee Journal for a year—both together for only $2.00.

Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offers on page 733.

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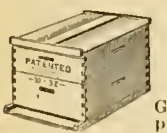

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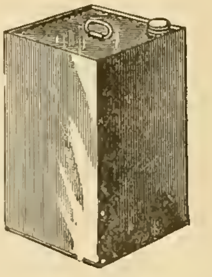

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I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now.
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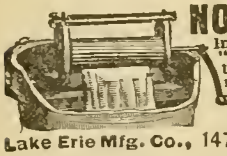

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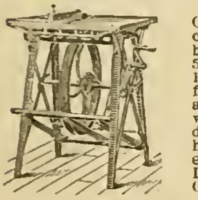

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General Items.

Poor Season for Bees.

Bees have done poorly all summer here. Very few colonies stored any surplus honey, altho the hives have been full of bees. MARY E. DEWEY.

Manatee Co., Fla., Nov. 15.

Honey-Year a Poor One.

I have 120 colonies of bees wintering. I could not do without the Bee Journal. We had a poor honey-year in this locality, FRANK BLANCHARD.

Chenango Co., N. Y., Nov. 22.

Too Much Bulk Honey Produced.

There is too much bulk honey produced here. My bees are packt for winter on the summer stands—115 in chaff hives, on the same plan as for 12 years past. We have had no rain of any consequence since July 5.

JOHN C. STEWART.

Nodaway Co., Mo., Nov. 19.

Bees Did Well.

I had 20 colonies, spring count, and run for comb honey nearly altogether the past season. One colony I had on four supers of 28 sections each, all well filled and capt, and the balance two supers each. I sell all my honey at home by the super, at $4.00 each, to the grocer. Honey was a failure in this neighborhood the past season. I think my success lies in the old American Bee Journal; it gives everything in season. I get it regularly. Long may it live.

W. J. STEVENSON.

Ontario, Canada, Nov. 17.

Sweet Clover—Putting Bees In.

The Busy Bee is doing lots of good by republishing so many articles on the sweet clover topic. They are now in convenient shape to refer to readily.

I expected to have moved my bees (31 colonies) into winter quarters (house-cellar) before this date, but I shall leave them out-doors as long as such nice weather as we now have continues. My practice for several years past is to cellar my bees as late as possible, and then to put them out for good as early as possible after March 1. I don't want my bees to remain in-doors until the trees begin to bloom, as many do.

M. M. BALDRIDGE.

Kane Co., Ill., Nov. 19.

Report for Several Years.

In 1895 I purchast a colony and increast it to two, but got no surplus, because I knew nothing of their management. The next season I increast the two colonies to seven, and secured 80 pounds of surplus honey. This season I started with six colonies and a 3-frame nucleus, and secured 700 pounds of surplus honey, mostly comb, and increast to 14 colonies. From one colony I secured 175 pounds of extracted honey, it being the only colony that did not swarm.

So you see the amount of surplus increast as my knowledge of the manage-

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About 90 Colonies of Italians. Any one wanting to start an apiary cannot do better than to call on Dr E Gallup, Santa Ana, Calif., and examine the Bees before purchasing elsewhere. Double sets of Combs in Langstroth-Simplicity Hives, and warranted a superior lot of Bees for business. Correspondence solicited. Dr. E. GALLUP,
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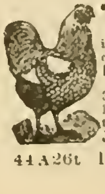

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ment of the honey-bee increast. I hope it may continue. I say the amount increast as my knowledge, judging from the amount of honey obtained by the bee-keepers in this vicinity in the last two seasons, which was more than this season. The honey-plants found here are white clover, linden, willow-herb, golden-rod and buckwheat; the last named of course being sown by the farmers. IRA D. BARTLETT.

Charlevoix Co., Mich., Nov. 15.

◆

Bees Did Well.

Bees have done well here this year. I read the American Bee Journal every week, and get a heap of information out of it. J. C. GAMBRILL.

Lamar Co., Tex., Nov. 15.

◆

Not a Good Season.

The past season did not prove very good here—too much rain in May and June. I had to feed half of my colonies (20). I got no swarms, but some 700 pounds of honey. The apiary is in an orchard within the city limits. Attending to the bees is a very agreeable pastime in our college work.

H. DUPRET.

Prov. of Quebec, Canada, Nov. 23.

◆

The Michigan No-Wall Foundation.

I am very glad the "Question-Box" took up the Michigan no-wall foundation. It is very agreeable to know the pros and cons of belief. The present, as also the past, places great stress on belief.

When the Michigan convention meets about Jan. 1, 1898, a comparison will be made, and facts, not beliefs, brought forward. As there are no money considerations to figure in the report—only prejudice and habit will bias the bee-keeper's judgment—it will be fair to expect a reasonable expression.

Clare Co., Mich., T. F. BINGHAM.

◆

Very Good Bee-Season.

The bee-season with me has been very good. I have a fine lot of honey, and 65 colonies of bees. I winter them on the summer stands, packt in leaves in cases, with a shingle roof. I have good results wintering in this way. I wintered about 45 colonies last winter with no loss, but they had abundant stores of good honey, and the storm-doors were up in bad weather. It was also a favorable winter. Nearly all my honey is white clover, and the best I ever saw.

I notice a man reports in the Bee Journal that he took off 3,500 pounds of honey, and yet he had no bees at all. I can't do that trick.

C. W. LEARNED.

Wayne Co., Mich., Nov. 23.

* * *

Bee-Keepers' Photograph.—We have now on hand a limited number of excellent photographs of prominent bee-keepers—a number of pictures on one card. The likeness of 49 of them are shown on one of the photographs, and 121 on the other. We will send them, postpaid, for 30 cts. a card, mailing from the 121 kind first; then after they are all gone, we will send the 49 kind. So those who order first will get the most "faces" for their money. Send orders to the Bee Journal office.

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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Nov. 8.—Fancy white 11 to 12c. No. 1, 10c.; fancy amber, 8 to 9c.; No. 1, 7.; fancy dark, 7 to 8c.; No 1 and mixed, 7c. Extracted, white, 5 to 6c.; amber, 4½ to 5c.; dark, 3½ to 4c. Beeswax, 26 to 27c.

All of these grades vary in quality and style of package, which makes it difficult to tell just what a certain colored honey will bring without knowing flavor and body thereof. Sales are of small amounts, and supply abundant. Beeswax is wanted at price quoted.

San Francisco, Calif., Oct. 27.—White comb, 1-lbs., 7½ to 9½c; amber, 4 to 6c. Extracted, white, 4¼ to 4¾c.; light amber, 3½ to 3¾c.; dark tule, 1¾ to 2¼c. Beeswax, fair to choice, 22 to 24c.

There is a tolerably firm market for choice to select water white, both comb and extracted, with not much of the same offering. In a small way on local account higher rates than are quotable are realized. Dark grades fail to receive any special attention, despite the fact that such are obtainable at low figures. There is no lack of demand for beeswax, and not much offering. At the same time, wholesale buyers refuse to operate at any advance on previous rates.

Philadelphia, Pa., Nov. 13.—Fancy white, 13 to 14c.; No 1, 12c.; fancy amber, 10c.; No. 1, 9c.; No. 1 dark, 8c. Extracted, white, 5 to 5½c.; amber, 5c.; dark, 4 to 4½c. Beeswax, 27c.

Honey is arriving very freely; market is a little off. Beeswax is in good demand.

Buffalo, N. Y., Nov. 19.—Trade is more quiet, and only the fanciest is moving satisfactorily at 10 to 11c.; other grades require pushing and cutting to move much, at from 9 to 6c., as to actual grade. Supplies are not large. Fancy can be easily placed. Extracted moves fairly well at 6 1-2 to 4c., as to color, etc.

Albany, N. Y., Nov. 8.—Fancy white, 13c.; No. 1, 12 to 12½c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c; fancy dark, 8 to 8½c.; No. 1, 7½ to 8c. Extracted, white, 5 to 6c.; amber, 4½ to 5c.; dark, 4 to 4½c.

Our honey market is active and stock moving off rapidly at quotations. Fancy white comb is scarce.

St. Louis, Mo., Nov. 8.—Fancy white, 11 to 12c.; amber, 9 to 10c.; dark, 7 to 8c. Extracted, white, 5¼ to 6c.; light amber, 4½ to 5c.; amber, 4 to 4½c. Beeswax, prime, 24 to 24½c.

Remand is rather light for this season of the year.

Boston, Mass., Nov 8.—Fancy white, in cartons, 13c.; No. 1, 11 to 12c.; fancy amber, 10c. Ex-tracted, white, 6 to 7c.; amber, 5 to 5½c. Beeswax, 28c.

No. 1 and fancy honey has sold well during the past 10 days, but off grades and light weight is going slowly. Beeswax is in good demand and but little here.

Kansas City, Mo., Nov. 8.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.; fancy amber, 10c. No. 1 9 to 10c.; fancy dark, 9c.; No. 1, 8. Extracted, white, 5½ to 6c.; amber, 5 to 5½c.; dark, 4 to 4½c. Beeswax, 22 to 25c.

Receipts of comb honey are large; extracted is light.

Minneapolis, Minn., Nov. 8.—Fancy white, 10½ to 12c.; No 1, 9 to 10c.; fancy amber, 9 to 10c.; No. 1, 9c. Extracted, white, 5 to 6c.; amber, 4 to 5c.

Demand is good, prices are firm, and supply only moderate—best time so far this season to ship.

New York, N. Y., Nov. 8.—Fancy white, 12c.; No. 1, 10 to 11c; fancy amber, 9 to 9½c.; No. 1, 9c.; fancy dark, 8½c; No. 1, 8c. Extracted, white, 5 to 5½c.; amber, 4½ to 5c.; dark, 4c. Beeswax, 26 to 27c.

Our market does not show much activity and comb honey is moving off rather slowly. The receipts are large and the stock is accumulating. While choice grades of white are likely to find sale at present quotations, prices on off grades and buckwheat will have to be shaded in round lots. Southern in barrels is in good demand at 50c. a gallon, for average grade.

Detroit, Mich., Nov. 9.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c; fancy dark, 7 to 8c. Extracted, white, 5 to 6c.; amber, 4 to 5c. Beeswax, 25 to 26c.

Cleveland, Ohio, Nov. 9.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c.; fancy dark, 7 to 8c. Extracted, white, 6½c.; amber, 5½ to 6c. Beeswax, 28c.

Milwaukee, Wis., Nov. 8.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c. Extracted, white, 5½ to 6c.; amber, 4½ to 5½c.; dark, 4 to 4½c. Beeswax, 25 to 27c.

The market is in good condition. Receipts are liberal, demand fair, and values fairly sustained on finest grades of honey, both comb and extracted. We are looking for an increased consumption of honey this season, as the cost is not high, and is an unequalled substitute for butter to any or all who cannot afford to buy the best butter.

Indianapolis, Ind., Nov. 8.—Fancy white, 11 to 13c.; No 1, 9 to 10c.; fancy amber, 9 to 10c. Extracted, white, 5 to 6c. Beeswax, 25c.

Demand for fancy white comb honey and fancy white extracted is exceptionally good, while there is almost no demand for dark or amber comb or extracted honey.

Cincinnati, Ohio, Nov. 6.—Fancy white, 11 to 13c.; No. 1, 10 to 12c.; No. 1 amber, 8 to 10c.; No. 1 dark, 7 to 8c. Extracted, white, 5 to 6c.; amber, 4to 5c.; dark, 3½ to 4c. Beeswax, 22 to 25c.

Demand is slow for extracted and comb honey, with a good supply, while beeswax is in good demand, with a fair supply.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN.
120 & 122 W. Broadway.

Kansas City, Mo.
C. C. CLEMONS & Co., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Cleveland, Ohio.
A. B. WILLIAMS & Co., 80 & 82 Broadway.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.
Mr. Selser handles no honey on commission

St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.
S. H. HALL & CO.

Milwaukee, Wis.
A. V. BISHOP & CO.

Boston, Mass.
BLAKE, SCOTT & LEE., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. MCCULLOCH & CO., 380 Broadway.

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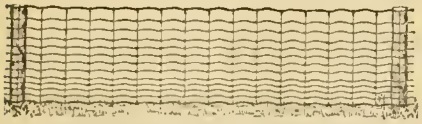

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The BEE-KEEPERS' REVIEW is $1.00 a year, but, for the sake of getting it into new hands, and being able to begin the year with a large list, I will, until Jan. 1st, send free to each new subscriber, a copy of "Advanced Bee-Culture," a 50-ct. book of nearly 100 pages, that gives briefly but clearly the best methods of management from the time the bees are put into the cellar in the fall until they are again ready for winter—32 chapters in all. Those who prefer can have, instead of the book, 12 back numbers of the REVIEW, the selection to be mine, but no two numbers alike. All who send $1.00 now will receive the last four issues of this year free, and the REVIEW will be sent to the end of 1898. If not acquainted with the REVIEW send 10 cents for three late but different issues.

W. Z. Hutchinson, Flint, Mich.

44E5t Please mention the Bee Journal.

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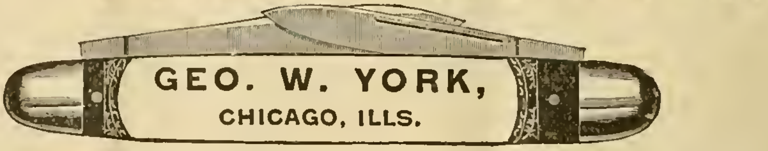

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The NOVELTY KNIFE is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed an AMERICAN BEE JOURNAL reminder, and on the other side, name and residence of the Subscriber.

The material entering into this celebrated knife is of the very best quality; the blades are handforged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring steel, and the finish of handle as described above. It will last a lifetime, with proper usage.

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How appropriate this knife is for a Christmas, New Year or birthday present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, a lady to a gentleman, or vice versa, a son to a mother, a husband to a wife, a brother to a sister or a gentleman to a lady—the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

How to Get this Valuable Knife.—We send it postpaid, for $1. , or give it as a Premium to the one sending us **three new Subscribers** to the BEE JOURNAL (with $3.00), and we will also send to each new name a copy of the Premium Edition of the book "Bees and Honey." We club the Novelty Knife with the BEE JOURNAL for one year, both for $1.90.

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CONVENTION PROCEEDINGS

Report of the Buffalo Convention of the United States Bee-Keepers' Union.

BY DR. A. B. MASON.

[Continued from page 758.]

SECOND DAY, AUG. 25—FORENOON SESSION.

The first on the program was the following by the President, George W. York:

Mrs. L. Harrison.

Hon. Eugene Secor.

W. A. Pryal.

The President's Annual Address.

FELLOW BEE-KEEPERS AND FRIENDS:—

Another year has sped away since last we met in convention. Lovely Lincoln, of the "wild and woolly West," a year ago, favored us with her large-hearted hospitality and most genuine and unselfish generosity.

Two years ago we were just across Lake Erie, in triumphant Toronto, surrounding which there flourish hosts of our brethren—among the best bee-keepers the golden sun and silvery moon ever shone upon.

But now we meet in beautiful Buffalo, fast becoming known here as the "Convention City." We of the West have come all the long way to learn from the multitude of wise bee-men of the East. And it is inspiring to find so many of them here, who are ready to pour into our receptive (as well as capacious) ears, all the most mystical mysteries of the hive, and the success-compelling secrets that aid in securing the maugnificent crops of Nature's purest sweet through the faithful help of the industrious bees.

The pursuit which the United States Bee-Keepers' Union represents, is one of the oldest known to man. Even in the olden Bible times honey was a familiar and esteemed food. While then they had not the present day innumerable contrivances (more or less helpful), with which to gather in the "honey-showers," nevertheless they had it in great abundance, for did not their goodly land *flow* with *honey*—and milk?

While bee-keeping was a deep study on the part of a few of the more thoughtful ones of the passing centuries since honey was extracted from the rock, or the carcass of a lion, it has remained for our Nineteenth Century civilization to place the industry of bee-keeping upon an enduring basis—to give to it a deserved permanency along with the other honored branches of modern, intelligent and progressive agriculture.

Tho the bee-keepers faithful servants be exceedingly small, they are wonderfully numerous, hence the results of their combined efforts aggregate so enormously, and are of such great importance to the world to-day. Thus it is that gatherings such as this are found, where those most interested may compare experiences and strive to so aid each other that knowledge concerning the little busy bee may be increast, and its product become a greater source of profit to those whose business it is to harvest it, and distribute to the world's hungry human toilers.

I cannot hope to add much, if anything, to what my audience already knows regarding the practical work connected with bee-culture, but I may strive to remind you of some things that you are quite familiar with, and also offer a few suggestions that possibly may cause a discussion that shall result in something of real benefit to each.

INCREASING THE CONSUMPTION OF HONEY.

First, I wish to call your attention to the very urgent need of devising some means by which honey—nectar fit for the gods—shall become more generally a dietary article. It should be found upon the plain, but neat and wholesome, tables of the toiling masses, as well as on the sumptuous banqueting boards of the rich and royal classes. The price of the article can no longer be urged as a barrier to its universal demand.

But how shall honey-producers proceed to create a more general use of their delicious and health-giving sweet, and consequently increase the demand? No great hight is attained and permanently occupied without much and constant effort. As in other domestic lines, so in this of honey consumption. Education of the public is the great necessity. They must be taught the intrinsic food value of our product ere they can be expected to use it to any appreciable extent. But this cannot be accomplisht in one week, or one month. It will require years to attain the desired goal. But it can be done. One bee-keeper cannot do it. *All* must help. As in the bee-hive, this is where individual work counts. Let every producer of honey see to it that his own neighborhood is thoroughly informed as to the true value of honey as a food, and it will not be long until the aggregate of honey-educated neighborhoods will embrace the total of America's great population.

But what special means can be employed to bring about this much-desired result? No one thing will do it. Of course, a good deal of talking will have to be done. The circulation of literature explaining the nature and valuable characteristics of honey as a food, together with recipes detailing a few of the very best forms in which honey may well enter as an ingredient—I say, the unlimited distribution of such concise, epitomized information will go far toward solving the problem. But this form of educating the public must be thoroughly and continually applied.

Again, the use of local newspapers should not be overlookt. Also, the presentation of tempting samples of honey to prospective customers will often prove especially helpful. Other means will readily suggest themselves to the usually bright brain of the bee-keeper.

DISPOSING OF LARGE CROPS OF HONEY.

One of the greatest questions that confront many a bee-keeper, and one that must be solved ere long, is that of disposing of large crops of honey. It is little encouragement to have produced a big crop of beautiful honey, and then find that there is no establisht market for the same—no organized, co-operative system through which the large crops can be distributed, or placed upon the market so as to yield the best financial returns. Right here is where the pursuit of bee-keeping is exceedingly weak. The fruit-growers are away beyond us in this regard. We must awake, and meet, in some satisfactory manner, this need that presents itself with such force to the extensive producers of honey. I doubt not there is ample wisdom and intelligent foresight possest by those in attendance at this convention to successfully meet this emergency. It *must* be met. The question is *How?*

It has been discovered, I think, that it will not do to rely wholly upon commission men. They can handle only a portion of the honey produced in our mellifluous land. And then, *some* of the commission men have proven themselves altogether too swinish, and devoid of common honesty, besides. There is too great an opportunity for fraudulent dealing ever to make the commission way of handling honey entirely and generally satisfactory to the large or even the small producer. Bee-keepers must some day be organized so as to handle and dispose of their honey themselves. *They can do it*, and they *will* do it, ere long. Then good-bye to the flowery-tongued, boastful, proud-of-his-big-rating-and-references commission man, who is a veritable leech upon his fellowmen, and should long ago have been everlastingly retired to the robbers' cave whence he came.

GRADING OF COMB HONEY.

The question of properly grading honey is one that has received all too scant attention on the part of the producers. There is not a doubt if there could obtain a mutual agreement between honey-shippers and the dealers, it would be a very great help toward securing a better and more nearly just price for the product. It seems to me that an executive committee should be appointed by this Union, whose duty it shall be to secure suggestions from the dealers in the principal markets, and also the ideas of the most extensive and practical producers, and from the views of both prepare and submit for consideration a set of rules for grading comb honey, being the combined wisdom of the committee, the producers, and the dealers. Then having such rules as a guide, they could be held open for further suggestions and criticisms, and for discussion in the bee-papers, until a stated time, when the committee should issue the final and perfected rules, to be followed by the producers in packing honey for shipment, and by the dealers when issuing market quotations.

PUTTING AN END TO HONEY-ADULTERATION.

Another line of most important work in which bee-keepers should unitedly engage, is that of forever putting an end to the adulteration of their fair liquid product, by the admixture of glucose or other foreign substance by the unprincipled and criminally inclined. This, to-day, is the greatest bane of the pursuit of honey-production, and to in some degree wage the initial battle against the hydra-headed monster, a year ago a new constitution was adopted by this organization, one of whose several important objects is that of attempting to suppress the adulteration of honey.

This is a subject in which every bee-keeper in christendom is vitally interested. Unless something radical is done, and that right speedily, the very existence of our beloved industry will be endangered.

It had been hoped by some that by the time of this meeting our able General Manager and wise Board of Directors might be permitted to accomplish something along this line, but not yet being supplied sufficiently with the needful financial equipment—the "sinews of war"—to begin the fight against the honey-adulterators, it was deemed best to simply wait until there is in hand ample "ammunition" to insure the entire annihilation of the enemy when once the war is begun.

It seems to me that the very first thing we need to do is to rally around the standard of the United States Bee-Keepers' Union a veritable host of determined, never-say-die honey-producers, who are willing to go in for the whole war, whether it takes all summer, or any number of summers—to eternally destroy our common foe—the abominable adulterators of earth's purest natural sweet!

I might continue these suggestive hints, but it is scarcely necessary. Every one of you is ready to go forward whenever this Union shall but give the starting word. Let us hope that at this convention such action will be taken along various lines as shall prove the bright harbinger of better things in our pursuit.

In conclusion, permit me to say that tho the presidency of this Union was thrust upon me at the last meeting, I have endeavored to discharge its duties to the best of my limited ability. I trust that wherein I have failed to measure up to your anticipations you may be lenient; and that at the close of my term of office I may have the pleasure of welcoming as my successor one who shall lead us all to higher hights of success, until the great and ennobling industry of bee-keeping shall be unto its devotees all that it rightly deserves to be.

Chicago, Ill., Aug. 14, 1897. GEORGE W. YORK.

Rev. E. T. Abbott—Bee-keepers ought to ask for honey when stopping at hotels. Bee-keepers preach of the healthfulness of honey, but say "I don't care for honey." Let's take our own medicine. I had considerable difficulty once to get a friend to try using honey. I finally got him to buy a 60-pound can of it, he thinking that it would last a lifetime. He now buys such a can full once in three months. We need to put forth some little effort to get people to using honey.

Dr. Miller—I think that something ought to be said in regard to the healthfulness of honey as compared with sugar.

R. F. Holtermann—If the people of the United States had some officer, some one in an official position, who would not be suspected of having an axe to grind, who could give the people the truth on these subjects, it would be believed, and be of great value.

B. S. K. Bennett—I was once troubled with dyspepsia, but it disappeared when I began to eat honey freely. In good years California produces about 300 carloads of honey, but the producers seem to think that they must sell by the carload, and pay but little attention to the home retail trade.

J. F. McIntyre—I have been successful in marketing by storing my honey in a fire-proof building and holding it until there comes a poor year and high prices. But little comb honey is produced, the trouble is in shipping it so far (from California). I have always gotten 6 cents until this year, when I sold some for 5½. We let the honey stand two weeks, when all particles rise, and it becomes clear and sparkling, when it is drawn off into cans. Our honey does not candy until two or three years old. There is about two cents a pound difference in price between the good and poor years.

Dr. Miller—You have 600 colonies, Mr. McIntyre; could you give us some idea as to how far they fly in their work?

Mr. McIntyre—People on the roads say that they see them five or six miles away. Two or three miles away they are seen much more plentifully. Bees do not fly in a "bee-line." They follow the grades of the canyons something as the railroads do. Bees do not work so well immediately after the honey is extracted. They gradually increase, and do the best about three days after the extracting is done, and then taper off.

Hon. Eugene Secor, the General Manager and Treasurer, not being able to be present on account of the illness of Mrs. Secor, sent the following suggestions on

Work that Needs to be Undertaken by the United States Bee-Keepers' Union.

The question may present itself to some well-meaning bee-keepers, who never had any trouble with their neighbors and do not anticipate any with commission men, "What is there for this society to do to further the interests of bee-keepers, that will warrant me in joining, if I do not expect any immediate personal advantage?"

Some people never see any merit in any cause that does not accrue to their own profit or ambition. If all the world acted from such motives no reform would go forward and no charity would be organized. Justice would seldom be meted out except by shot-gun methods.

It is by organized effort and a community of sentiment that laws are made and enforced. They neither make nor enforce themselves. Public sentiment must be created before laws will be enacted; and, when enacted, public sentiment must support the officers who try to enforce them, or such laws will soon become "dead letter."

The way to create public sentiment is to organize all who have ideas in common, and concentrate all effort toward accomplishment of the thing sought after.

When the National Bee-Keepers Union was organized to defend its members in the right to keep bees, it set about that work in a methodical and effective manner. When a case arose which appealed to its funds, the best talent available was secured, and a court decision obtained which will stand as a precedent for all time.

You may not all know that the interpretation of law is largely based on precedent. No matter how hoary with age and musty with disuse, a court decision is venerated by the bench and bar very much as a true believer venerates a "Thus saith the Lord." A decision of any of the higher courts is, therefore, of great value.

Adulteration is the crying evil of our time. Competition is so close and the profit so small that if any article can be sold a trifle cheaper by using an adulterant, the temptation is to do so. If the buyer asks for coffee he doesn't know whether he gets it or beans and chicory. If he wants butter he is likely to get oleo or butterine. Extracted honey put up in glass tumblers with a bit of honey-comb floating in a liquid that never granulates is liable to savor of the glucose factory. And so on with the whole list of prepared foods. The dairy people have organized, and in most of the States have procured prohibitive legislation.

One of the things on which I believe the officers and directors of this society agree is the importance of pure food laws in all the States where they do not already exist. Any well organized society can do much to hurry the enactment of such laws. This we purpose doing. And when the proper legislation is secured we purpose to see that the law is enforced so far as the adulteration of honey is concerned. The dairy people look after their interests; we shall be compelled to protect our own in the same manner. We can not expect the public officers to take the necessary interest in our specialty without a little stiffening of the spinal column by some one whose interests are jeopardized. We are already making arrangement to test samples of honey found on the market. If bee-keepers will stand together the adulterator will find a hard road to travel.

Another legitimate and worthy effort will be to drive every dishonest commission man out of the honey-business, or at least to put every member of this society on his guard. A system of espionage in every large city is practical and need cost but little. Let us put a premium on honesty, and the mark of Cain on every rogue.

The one thing necessary to make our influence felt is united action on the part of bee-keepers.

Let every one of us use his personal influence in the community and State in which he lives, to bring about the enactment of pure food laws; let him urge the proper authorities to enforce them, and co-operate with this society in every endeavor to protect and defend the industry which it represents.

EUGENE SECOR.

Mr. R. C. Aikin, of Colorado, sent this paper, which was read next:

Improved Methods of Extracted-Honey Production.

This is a knotty problem. That improvement is necessary, I believe that most will admit, tho just how to improve is as yet largely an open question. To know what improvement is necessary we must know the faults of present methods.

Shall extracted honey be a luxury only, or shall it become a staple? I answer, a staple. Sugar now holds first place as a sweet, is backt by a huge monopolistic trust that scruples at nothing, good or bad, so long as its financial interests are forwarded.

Competition, it is said, is the life of trade, tho in fact it is the death of it. If competition were only at all times fair, then a thing would stand or fall as it has merit; but, alas, competitive methods are often so devoid of justice that merit loses much of its weight.

Comb honey is, and will probably remain, a luxury; but extracted has reacht that point that it must become a staple sweet, or else its production be limited. I suppose that in all civilization there is not a place that sugar is not found. It is everywhere as a competitor with other sweets. Two things govern the demand for any sweet, viz.: the consumer's tastes, and his ability to buy. Of two or more sweets offered, the cheaper will be used unless the other appeals to the taste and can be afforded. As a fine article of granulated sugar can be bought at five to six cents, it remains that extracted honey must sell at or near that price to all but those who can afford and want it as a luxury. Our market quotations show this now.

We must, then, look to methods that will both improve the quality and cheapen the product. Old methods contemplated the taking of unripe honey and thus increasing the quantity, which has proved a step backward rather than forward. I suspect that many have not yet learned that to thus increase the volume of production is but to sacrifice quality, price and demand. An unripe, poor grade of extracted honey is not the equal of granulated sugar syrup, while a good article of extracted is superior to sugar. Honey has for ages been a favored sweet, and is so yet, and if at a price to compete with substitutes will hold a place.

I have just been looking over the market quotations in the Aug. 12th issue of the American Bee Journal. The quotations on "fancy comb" range from 9 to 14 cents, the average of the highest quotations being about 12½ cents. The average of all grades of comb somewhere near 10 cents with extracted ranging from 3½ to 7 cents, averaging probably near 5 cents. It appears, then, that extracted honey and sugar are about the same price. In order that liquid honey compete with sugar, not only should the price be proportionate, but of equal quality and convenient to handle.

It is commonly claimed that two pounds of extracted honey can be produced to one of comb, which statement is generally accepted to mean that extracted can be produced at ½ the cost of comb. Suppose we can get two pounds of extracted to one of comb; the increast quantity requires an increast amount of labor both in producing and marketing, as well as additional cases and investment in combs and such, hence by no means doubling profits.

For about 13 years in Iowa, and 7 in Colorado, I have produced both comb and extracted side by side. Never did my crop of extracted per colony, double over that of comb. The best that I can claim has been 3 of extracted to 2 of comb; but some bitter experience in losing in winter and spring by starvation of the extracted colonies, showed me where I got my extra surplus. Run two colonies, one for comb honey and the other extracted, and when the crop is off make an accurate estimate of the honey in the brood-chambers and see where you get your honey. It is as reasonable as can be that comb-honey colonies will pack more honey in their brood-chambers than will those having unlimited store-comb above. The fact that my colonies run for comb *invariably* winter better than extracted colonies, beat into my head this fact.

It is necessary, then, that colonies run for extracted shall have a larger brood-chamber than do the comb-honey colonies. This is no argument in favor of small hives. We want large hives for comb honey, and larger still for extracted. 10 Langstroth frames is nearer right for comb than 8; and 10 to 20 for extracted. I have two apiaries in American hives, run for extracted honey. A portion of these, instead of full depth, are half-depth size, 2 shallow chambers with 6-inch frames equaling one chamber of full-depth size. I am running these using 3 and 4 shallow chambers or 2 deep ones for a brood-nest.

Swarming is the great difficulty that hinders cheap or inexpensive methods. I have this year had but one swarm from 140 colonies in these big brood-chamber hives. At the beginning of the flow I put the chamber containing brood and stores at the top, the dry combs at the bottom. This puts the brood up near the extracting-combs and a set of dry combs under. With this arrangement *strong* colonies will occupy the extras above about as quickly—sometimes more quickly—than the ones beneath. As the honey crowds the brood in the top of brood-nest the queen occupies below, instead of swarming.

The first point, then, is a large brood-chamber, depth being important. Depth is much more effective than width, and the brood at the top when the flow begins. This big, deep brood-nest with unlimited comb room above practically solves the swarming problem, reducing it to the minimum.

The next thing is to get rid of the immense amount of labor required with present methods, during the flow. Aside from the swarming problem, it is much easier to manage comb-honey colonies than extracted, if the *extracting be done during the flow*. It is just as simple and easy to get on a super of sections as one of combs, and just as easy to shift the full sections to the top as to shift extracting-supers in a similar way. I would do this in either case. To put empty combs under a full set draws the bees from the brood-chamber and discourages swarming, and will frequently draw the honey there too, hence another necessity for large brood-chambers, lest too much go to the extra.

The second point, then, is *no extracting during the flow*, but plenty of extras to hold the crop and have it fully ripe. At any time, during the flow, or later, the cost of extracting and casing is fully as great with the extracted honey as with comb. I would by all odds prefer to remove and case the comb—it is less labor and more pleasant work.

The third point is removing from the hives. Here, my methods are identical for both comb and extracted. The first requisite is a window in the honey-room (or any room most convenient, even a tent with a screened hole), the screen running above the window and open at the top. The opening may extend clear across the entire width, but should be several inches above the window. A better way is to let the screen run up like an inverted V to a small opening, and on that opening have a box or trap so that the bees pass through a cone into it, then the trap can be carried among the hives to liberate the bees, and thus avoid young bees congregating about the windows.

When I am ready to remove the honey I just smoke at the top and send the bees down on the run, holding the smoke right after them (not before) until the most are out, when the super is *at once* removed. If honey is coming in, or so that they will not rob, the supers may stand about the yard awhile and many bees go out there. If not safe outside, I take them at once to the room and set them before the window and close to it in a strong light. The bees will at once begin to go on the screen and work upward to the trap or outlet, the noise of those on the window helping to draw the others. If to be extracted at once I begin on that having the fewest bees. Even if I have to shake off a few bees it is cheaper than to handle the combs one by one in the yard. When they would rob, the chambers are gotten into the house so quickly that they don't know what is up till it is all over with.

The fourth point is having enough extras to hold the entire crop, and extracting later. One can thus remove it at any time and store it in the honey-house. When a convenient time comes to extract, the honey will have to be warmed. This looks like a big task, tho really but a very simple matter. A stove in the honey-room will do the work. Shut all doors and windows or other openings, and a very little fire will heat the room to 90 or 100 degrees. Keep the room at this degree for about 24 hours, when the honey will be ready to extract. However, if the chambers be piled solid, and in such a way as to interfere with a free circulation through them, it may be necessary to keep the heat for 36 to 48 hours.

The past month I removed honey and piled it into a brick room 10x16 feet. Built against and opening into this room on the south, is my 6x6 feet solar wax extractor. By opening the solar extractor into the room the temperature soon went up to 90° and 100°, and by evening the honey extracted just as nice as direct from the hives.

Having this fully ripened honey extracted, my fifth point would be at once, before candying, put it into retail packages. If, however, it is to be retailed at home and drawn into buckets and whatever the customer brings, such portion must be kept in a tank, and this tank should be arranged with some kind of a heating appliance, especially if the honey candies freely.

In addition to the foregoing, I wish to offer some thoughts that will probably be new to the most of you. For three or four years I have entertained a new departure in producing extracted. The system would include the large brood-nest and large surplus room, but instead of having a large stock of extracting-combs I would have only a few "bait combs," which I would keep permanently, the bees would be allowed to build their comb as much as needed. This honey would be removed and stored as previously described, and the bait combs extracted in the usual way. The new combs I cut out and crush between rollers similar to a clothes wringer, but simple and cheap, the honey dropping into a vat to drain off, much as cappings in an uncapping-can. I would thus produce as fine an article as could be had, and a very superior grade of wax.

It takes about two pounds of wax to hold 50 pounds of honey. If the yield should be reduced ¼ by the bees having to build their combs there still would not be so much loss; 12 pounds of honey at 5 cents is 60 cents. The wax from the 38 pounds of honey would be worth 30 to 40 cents at least. Without having given the matter a thorough test I should estimate that the larger per cent. of wax, together with the decreast amount of labor both in the work of extracting and in caring for extracting-combs, would more than offset any decrease in yield. I could crush thousands of pounds in the time I could throw out hundreds with the extractor.

You will, in view of the foregoing plan, understand that I do not believe in the theory of great quantities of honey being consumed in the production of wax. At present I cannot accept anywhere near the 15 or 20 pounds to 1 ratio. More than this, I do not believe we can get any considerable more extracted per colony than of comb. I am carefully studying this problem, and have for about 20 years produced both comb and extracted side by side. To here give all the proofs of my position would make this paper altogether too long.

In a few words, improved methods of extracted-honey production means producing a superior article at much less outlay for fixtures and labor—especially labor—and putting much of this labor outside of the honey season.

I hope that these thoughts may receive thoughtful consideration, and that they shall prove helpful to the fraternity. I regret that limited honey-flows—even this year of great plenty—have prevented a more thorough knowledge of the new method, and also prevents me being with you at this meeting.

R. C. Aikin.

J. C. Stewart—I take a great deal of care of my combs after I have gotten them.

E. A. Wander—I tried the clothes wringer on unfinisht sections, but it was quite a job to get them started through the rollers.

Mr. Holtermann—If it pays to have combs built, and then filled with honey and crush the combs to get out the honey, it strikes me that it would be more profitable to have the combs built right in the sections in the first place.

Successful Bee-Keeping

was the subject assigned Mr. G. M. Doolittle, of New York, who had no paper prepared, but spoke extemporaneously. His center thought was that all depended upon the bee-keeper himself. Study yourself; make the most of yourself. Do the very best that you can. Don't be half-hearted. Get the best hives, the best bees, and a thorough knowledge of your business and your location, and then apply this knowledge.

Mrs. L. Harrison, of Illinois, sent the following paper, which was read by Dr. Miller:

Bee-Keeping for Women.

There is implanted in the heart of most women a desire for independence and an opportunity to supply her wants by the exercise of her own powers. Let these dormant buds, which have so long been covered by the decree of fashion, and by the inborn intuition of the other sex for clinging vines, be-given the free air of heaven, they will expand into blossoms, maturing delicious fruit. Woman will then develop into a self-reliant, capable being; she will then no longer be the slave of a drunken despot of a husband for the sake of a crust. A man, in one of his drunken sprees, said to a friend of mine lately, "Women used to cling to a man, get him out of the gutter when drunk, but they will not do it any more." She don't have to when she can support herself and her little ones.

Many a woman who is well provided for desires to earn money; a lady who had traveled the world over, and had everything that she desired that money could supply, being askt what had given her the greatest pleasure, she replied, "A few dollars that I once earned." Many a woman whose heart's desire is to help a poor relative, give to a charity, or to a church, has said to herself, "O, if I could only earn the money myself, I would gladly do so."

There are many avenues of emolument open to women who have no home ties: teaching, typewriting, book-keeping, telegraphing, and many find employment in manufactories. The number of occupations open to women have increast from 70 to more than 500 in less than 40 years. The want is something that home-keepers can do to earn money. There was a wide field open to the ingenuity of our grandmothers. They spun wool, cotton and flax, dyed and wove, cut and made garments, but now the inventive genius of man has superseded this with nimble-fingered machinery. Butter and cheese are made at factories. The ever-busy mind of woman must now seek other avenues for the exercise of her faculties.

There is much more in a colony of bees than the honey and wax they represent. They offer to any intelligent and inquisitive mind a rich field of thought. Nature is rich in resources, and honey-bees are in close relation with it. Sex in plants is now attracting more attention than formerly, and bees act as marriage-priests; while gathering the pollen to make the bee-bread for their brood, they disseminate the father dust from flower to flower. The cultivation of the honey-bee opens up a new world to a woman of inquiring mind, for every plant that grows possesses new interest to her, for it may mean dollars and cents to her purse. The little, modest white clover, wherever it rears its head, is petted and carest as it holds within its petals nectar—fit food for the gods. There is a lesson to be learned from the inmates of the hive.

> "So work the honey-bees—
> Creatures that by a rule in Nature teach
> The art of order to a peopled kingdom."

The government of a colony of bees is all in the hands of the females, and a woman may gain inspiration by its study as to how best to manage her household. When the young bee issues from its cell, weak and downy, it has not strength to roam the fields and carry heavy loads of honey and pollen—it is then given the care of the young to feed and nourish; digest the food and feed the queen and drones; secrete wax and build the comb, and is daily given a play-spell in the open air to locate its hive, and gain strength for the heavy labors of the field.

The office of the queen is no sinecure, as she lays, at her best, 3,000 eggs a day, and let her reproductive powers fail, her throne is given to another, for their law is like that of the Medes and Persians, which changes not—the greatest good to the greatest number.

Bee-culture opens an avenue for woman which has long been a want, as it gives to her the means of acquiring money in the retirement of her home, and at the same time look after the comfort of her household. She may have an invalid husband, decrepit parents, an imbecile brother or sister, or little children; tho her hands are full yet she feels the need of money to supply their wants. Most of those individuals mentioned, tho not able to manage an apiary alone, would become interested helpers. Little children can watch bees during swarming-time; so can an aged parent, sitting in an easy chair, overlooking an apiary, and inform of a swarm, and from which hive it issued, and where it has settled. They would enjoy putting together sections; make time pass happily with them, tho not able to walk. The feeling of being useful in lieu of burdens, would cause them to forget their aches and pains.

Bee-culture requires no great outlay of strength at any one time; but to be a success there must be a faithful performance of many little items. Any woman who can make a perfect loaf of bread can, having a good location, make bee-culture a success, as she realizes the importance of performing all the manipulations of the colony at the exact time. It requires no outlay for land upon which to raise crops, for as yet there has been no plant discovered that pays to plant for honey alone. The honey-bee is a benefactor to our race, roaming the fields at will, gathering honey and pollen which it pays for in the fertilization of flowers. She takes nothing from the fertility of the soil, but gives to it one of the greatest fertilizers known—the clovers—which would become extinct if it were not for her agency in fertilizing the bloom. No land is required except a spot on which to place the hives. I knew a poor woman who occupied the second story of a tenement in a large city, and had no place to set her hives except upon a slanting roof. Her few hives kept under such disadvantages added materially to her slender income. I know of another lady who invested $600 in bees, hives, and patented fixtures who realized nothing from her expenditures. She had read a sensational story of a fortune being made in bee-keeping, and invested her means without knowledge, and entrusted the care of her apiary to a person who knew nothing of bees, but that "they stung and gathered honey." Bee-culture is a science requiring study and thought.

Women have made a success in bee-culture, and what woman has done woman can do. Two young women attending a boarding-school, suddenly found themselves thrown upon their own resources. Their father's fortune had flown, and with it his mind. In a log house upon a little clearing in a Michigan woods they engaged in bee-culture, and from its source supported their invalid parents, and obtained the means for erecting a good home, surrounded not only with the comforts but the elegancies of life. Mrs. Sherman, a grand, noble woman of Texas, left a widow with an only son, reared and educated him, at the same time caring for an aged father, by the culture of bees and poultry.

I've been a bee-keeper for 25 years, with varied experience, commencing with two colonies, and increasing in bee-lore with the same ratio as my colonies by reading standard works on bee-culture, and the many periodicals devoted to this industry. Crops of honey have their off years, the same as fruit and grain, with this in their favor, when the honey crop fails, there has been no labor expended in plowing and sowing. And with very few exceptions bees will store during the season sufficient honey for their own wants until flowers bloom another season, costing their owner nothing for their support. In most States bees are not taxt. The largest number of colonies that I have owned at one time was 120; the largest crop of honey during one season was 5,000 pounds.

Bee-keeping has been to me one of my greatest pleasures. The ancients called the honey-bee "Deborah," or she that speaketh. She has spoken to me in words of love and cheer; expanded to my view rich fields of thought; improved my health and cheerfulness; inspired me with new aims and desires; and furnisht me with the means for travel, recreation and improvement. I cordially introduce other women to her acquaintance, and that she may prove as good a friend to them as to the writer, is my fondest desire.

(MRS.) L. HARRISON.

G. M. Doolittle—How many bee-keepers present ever saw a worker feed a drone?

Seven held up their hands.

Mr. Doolittle—I have never seen a worker feed a drone.

F. Danzenbaker—I have seen workers feeding drones when the latter had been shut up in a trap three hours.

Mr. Doolittle—Unless we need drones for propagation we should keep them down. If you put six combs of drone-brood into a colony just before the basswood honey harvest, these drones will eat all of the honey that is gathered, and no surplus will come from that hive.

Dr. A. B. Mason—How do the bees get rid of drones?

Mr. Doolittle—The bees persecute them and drive them from the hive.

Dr. Miller—I think that I have seen it mentioned that the workers prepare food for the drones the same as they do for the queen, and that the workers bring about the destruction of the drones by withholding this food.

Mr. Abbott—Two of the most competent men in Europe have taken this stand.

Rates on Honey and Bees.

A petition was read asking that the transportation companies class extracted honey the same as syrup, that is, fourth class. Approved.

Mr. Holtermann—The rates on bees are too high. The railroads stand in their own light. If rates were lower, more bees would be shipt.

Mr. McKnight—So few persons ship bees that it isn't of much consequence.

Dr. Miller—In the old countries rates are so low that bees are sent to new pastures and returned by rail. We cannot do that in this country. We often advise a beginner to buy a nucleus because the rates are so high; if they were lower we would advise him to get a full colony.

Do Bees Hear?

Dr. Miller—I don't suppose that any one knows, but it is believed that they do.

W. Z. Hutchinson—The "call" at the entrance in the hiving of a swarm, and the way it is answered, shows that they hear?

Dr. H. Besse—When the salute was fired on the Fourth of July the bees came hurrying home just as they do before a thunder storm.

Mr. E. Whitcomb—Bees make a great variety of sounds that seem to be understood. Put several combs of bees in a dark room, each comb in a different part of the room, and put a queen on one of the combs, and soon all of the bees will be on the comb with the queen. If they cannot hear how do they communicate in this instance?

Temperature for Ripening Honey.

Mr. Doolittle—I would ripen it at 70°.

Mr. Holtermann—Comb honey may ripen quicker than extracted because a greater surface is exposed to the air, that is, unless some means are used to change the surface of the extracted.

Mr. McKnight—The ripening of honey is simply removing the excess of moisture, and it makes no difference whether it is done inside the hive or out of it.

Mr. Doolittle—I have several times told in the bee-papers how bees ripen honey. I have watcht them at night by the aid of a lamp. I have done this for hours at a time. They hang loosely, and each bee has its sac filled with honey, and then puts forth the tongue covered with honey, and then draws it back. By the light of the lamp this little droplet can be seen to gisten. In this way the honey is exposed to the warm air of the hive, and honey that would drop from the cells in the evening is quite thick by morning. Let the honey-flow cease and this ripening process—this "roaring" that we hear in the evening when the flow is good—will cease in three or four days.

[Continued next week.]

Contributed Articles

About the Cellar Wintering of Bees.

BY C. P. DADANT.

The time has come to put the bees into winter quarters, and if they are to be placed in the cellar, that job ought not to be deferred beyond December 10, unless the weather is unusually fair. As a matter of course it is not advisable to move them to the cellar in warm weather, for they are much more restless, and more bees are lost, than in cold weather. In addition to this, the warm days are beneficial to them if they can have a flight.

When we put bees into our bee-cellar, we usually select a cold day, in the beginning of December, or the last days of November. The caps or covers of the hives are left on the summer stand with the number of each hive markt inside of the cap; so that they may be returned to the same spot in the spring. We know that many apiarists consider this superfluous. We do not, for we have had very clear evidence that many of the bees remember their location, even after four months of confinement, and that a change helps to bewilder them when they are first removed. It may not be amiss to state in what manner we ascertained this.

We have, in our home apiary, two styles of hives, that is, hives containing frames of two different sizes. About half of them are with our regular Quinby frames, and the rest in frames similar to the American hive frames, measuring about 12x13 inches. As it is inconvenient to have the two different styles side by side, we have separated the hives into two yards, one on each side of the road leading up to the house. A few years ago, it happened that, in catching two or three swarms, some of the hives were placed in the wrong yard, and we neglected to move them away. When they were put in winter quarters, we concluded that we would make the exchange in the spring, at their removal from the cellar. This was done. All the colonies that were removed from the cellar that day behaved very nicely, except the two or three that had been changed in location. The uproar among these was such that we concluded to move them back, so as to regain the lost bees.

We believe a great deal of the trouble experienced by beginners with bees that are removed from the cellar—hive deserting, fighting, dwindling—during the first few days, is caused by their having placed them in a changed location. So we strongly urge those who can do it easily, to leave the cap, or cover, with a mark at the exact spot occupied by the hive. This cap, or cover, is not needed in the cellar, for the bees should be given a certain amount of upward ventilation.

We do not like to place any of the hives next to the cellar floor. In all our experience, whenever the combs have suffered from mold, or the hive has proven damp, it was in the lowest tiers, in the cellar. If the hives are kept on joists or shelves, a foot or more from the floor, the conditions will be much more satisfactory. But they may be piled up in tiers of three, four, or even more. The entrance is left wide open, but darkness is necessary, and quiet is just as indispensable as the absence of light. We have a special room partitioned off in our home cellar for the bees, but we also keep apples and potatoes in it. We do not use the cellar more than one winter out of every five, for wintering the bees, for the reason that I have stated in a former article. We are on the limit of safe outdoor wintering, but when the bees are in good condition, strong and populous, when the honey is of good quality and plentiful, and the winter is fairly mild at its beginning, we prefer the natural hibernation.

An ordinary house-cellar is sufficient, if the portion reserved to the bees is partitioned off in some manner to make it dark, and if the temperature can be kept without much trouble at the proper degree. From 40° to 45° is the best temperature. We have heard it said, by men who claimed to know, that a moist cellar could be kept at a much higher temperature, and that the bees would winter well in it; we have even heard a bee-keeper assert that bees would remain quiet in a cellar with a temperature of 60° or 80°; but we afterward found out that this man did not have a thermometer in his cellar, and was "just guessing" at the degree. This is wrong. What is worth doing at all is worth doing well, and the cost of a thermometer is not so great that a practical man should winter his bees on a guess.

In ordinary winters, we find it less difficult to keep the temperature above the limit mentioned than below it. Fifty or 100 colonies of bees, groupt together in a cellar that will usually keep fruits or potatoes will be found to raise the temperature very rapidly, if no outside current tempers it. We must remember that the bees are warm-bodied insects, and keep their cluster at blood heat. This, of course, must necessarily act upon the air of a closed apartment, materially increasing the degree of heat. So we find it quite indispensable to keep the cellar-windows partly open, with a shutter that excludes the light. The quantity of air given is measured according to the atmospheric conditions and the warmth of the cellar. Many of our good bee-keepers pay daily attention to their bees, and find it as necessary to do so when they are housed up at as any other time. It is certain that only by such watchfulness can bee-culture be made a success. The bee-business, as Mr. Heddon said, is altogether "a business of details."

Hancock Co., Ill.

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Some California Notes and Observations.

BY W. A. PRYAL.

The other evening I was presented with a sample of comb honey that was gathered well up on the side of old Mt. Diablo—a mountain some 30 miles east of Oakland. I must admit that if all the honey gathered upon this mountain is like the sample, then the "Devil's Mount" is not a bad place for producing good honey.

* * *

Mr. Nevins, who formerly kept bees in one of the Western States, but who has lived in Alameda and Contra Costa counties, Calif., for the past few years, is building up an apiary on one of the slopes of Mt. Diablo. He finds that there are a number of good locations for apiaries about the mountain, and he is going to take advantage of some of them. I had long maintained that there are splendid sites for profitable bee-ranches in Contra Costa county, and that the best of them were on and about the Devil's Mountain.

Mr. J. S. Harbison, who may be truthfully called the Father of California bee-culture, maintained in his writings, over 30 years ago, that the bee-ranges of northern California, when developt, would be found to be something more than the sources of pasturage then known to bee-keepers of this State. Of course, since then the great honey-sage region of the southern portion of the State was discovered, and tho that section must be voted a wonderful honey-field, still there are any amount of localities throughout the central and northern portion of the State that yields honey of excellent quality, and what is also of great importance, good yields are obtained every year.

* * *

John Muir, the well known California scientist and traveler, stated in an article on "California Bee-Ranches," in Scribner's Magazine, 15 years ago (June and July, 1882), that there were great bee-gardens in Northern California, and that they were nowhere finer than about Mt. Shasta. To my mind this article was the finest from a literary standpoint of anything every written about bees in this country.

* * *

I met Mr. Thomas Wm. Cowan, editor of the British Bee Journal, in Oakland, a few weeks ago. It was some months previously that I saw him last. In the few minutes' chat I had with him, he told me that he had spent most of the summer at Monterey—that quaint, old, sleepy town that was the first capital of California. He was for a time at Pacific Grove, a settlement adjoining Monterey, and supported mainly by the annual gathering of the Chautauquans. Mr. Cowan was looking well. He had not, up to that time, taken his proposed trip among the bee-ranches of Southern California. He was stopping in Oakland a couple of days, preparatory to going to his son's fruit-ranch in one of the northern counties. Later he intended to "do" the lower portion of the State.

The distinguisht English visitor has not been "hiding his light under a bushel" while sojourning in the Sunset land, for while at Monterey he was called upon to deliver a lecture before the farmers' institute. These gatherings are mostly held under the auspices of the University of California. I believe Mr. Cowan's subject was "Bees and Flowers." He regretted that at the time of the institute he was suffering from a cold, and his voice did not allow him to do the subject justice. The lecture, however, was well received, and was subsequently printed in the Pacific Rural Press. [We have saved Mr. Cowan's lecture, and expect some day to give it in these columns.—EDITOR.]

* * *

I was very sorry to learn of the serious sickness of Mr. J. H. Martin, at Los Angeles. I trust he will soon be well. I shall never forget my rambling camping trip with Rambler and Mr. H. E. Wilder, through a tier of the northern counties of the State three years ago. We all enjoyed ourselves, but he (Martin) had the best of me later by attributing all sorts of ridiculous things to me (and Wilder, too) in his "Rambles" (without number) in Gleanings. Mr. Martin is one of the best men it was ever my lot to be cast with, and yet, withal, he is not of the straight-laced order that some might think him to be.

* * *

The illness of Mr. Martin reminds me that another gentleman who has long been identified with apiarian interests in that (Los Angeles) county, has been seriously sick the past year, so much so at one time that it was thought that he could not pull through. This was W. W. Bliss, or, as he is getting to be commonly referred to, "Comb Foundation Bill." After a long siege among doctors, hospitals and surgical instruments, Mr. Bliss is restored to his family a well man again.

My reference to Mr. Bliss just now as "Comb Foundation Bill," induces me to say a word about the gentleman's enterprise in the foundation line. "From little acorns great oaks grow," may be used to exemplify the growth of his business in that direction. From turning out a few pounds of comb-bases at first, now he turns it out by the ton. I remember when I called at his place, close on five years ago, his equipment for this work was almost of the crudest nature. I have recently learned that this gentleman is building a factory exclusively for the manufacture of pure comb foundation, that will be equal to any in the land; and that it will be fitted with the most approved appliances, some of which are of his own devising. Why should not California manufacture her own foundation? And why should not our apiarists use her home product? California bees do not send East for honey out of which to make their wax; they use the home product.

* * *

The biggest bee-yarn I think I ever read was printed in the San Francisco Examiner, some weeks ago. It was from the pen of Joaquin Miller, the poet of the Sierras, and, by the way, a fellow townsman of mine. Well, Mr. Miller was sent with one of the Examiner-Journal's expeditions to write up the Klondike, etc. Our poet reported that while making his way through the Chilcoot Pass, he saw a bee—yes, a honey-bee—gathering honey from the flowers—and such flowers—those of Paradise in the time of Adam could not have been more profuse or gorgeous. One would almost think that the poet had been sent North by the American Bee Journal to find the bee-keepers' paradise, instead of by a daily newspaper to tell about the Eldorado away up near the north pole.

* * *

A writer in describing "Some Curiosities of Farming," in the November issue of the Cosmopolitan Magazine, relates a few funny things about bee-keeping. He tells of some bee-hives exhibited at the Fair at Cairo, Egypt, that were made out of coal-oil cans, that came from Russia. He also mentions how some youthful bee-keepers fooled the judges of the Fair by an exhibit they made of 30 different kinds of honey. The said judges awarded a number of premiums for this honey. Of course there was a first prize for the best, and minor prizes down the scale for others, according to quality. The fun of it was that all the honey was from the same lot—there was no difference.

From the way many of the judges are chosen at our American agricultural fairs, I am inclined to think they would be as gullible as were those poor Egyptian ones, who the fun-making youngsters so "sweetly" sold.

* * *

What a great book-distributor Uncle Sam is getting to be! Before me lies quite a little pile of treatises issued from the United States Department of Agriculture, and they are all valuable ones, and I obtained them by expending two cents for a postage stamp and sacrificing a sheet of paper and an envelope, to say nothing of the ink. The first one I look at is "The Sugar Beet," by Prof. H. W. Wiley (bee-keepers will recognize the author, no doubt); it contains 42 pages of reading matter; then there is Benton's "Bee-Keeping," with 30 pages of how to manage bees. One of the pamphlets before me is entitled "Standard Varieties of Chickens;" 46 pages of reading, and embellisht with numerous fine pen-drawings of chickens. This bulletin (No. 51) forms part of the "Year Book of 1896," of the Agricultural Department. Every one interested in chickens should send for this and Bulletin No. 41, on the care and feeding of fowls. "Alfalfa, or Lucerne," No. 31 (20 pages), is a pamphlet of interest to bee-keepers. These are a few of the 42 bulletins that are available for distribution by the Secretary of Agriculture.

Alameda Co., Calif., Nov. 11.

Honey as Food is the name of a 24-page pamphlet, 3¼x6¼ inches, which we are now printing for general distribution among those who should be users of honey. It is just the thing for bee-keepers to hand to every one of their customers, and also to those whom they would like to have as customers. It is very handy in size—just right to go into an ordinary business envelope. It contains 12 illustrations, five of which are somewhat comic, and help to make it attractive. There is a blank space for your name and address. About ⅛ of the pamphlet was written by Dr. Miller, and then we added thereto many new and valuable honey recipes—for cooking and for medicinal purposes. In all, it makes a neat little pamphlet. Send name and address and we will mail you a sample of "Honey as Food."

Prices for quantities, postpaid—25 for 30 cents; 50 for 50 cents; 100 for $5 cents: 200 for $1.40. By express, not prepaid, 500 for $3.00; 1,000, $5.00.

Langstroth on the Honey-Bee, revised by The Dadants, is a standard, reliable and thoroughly complete work on bee-culture. It contains 520 pages, and is bound elegantly. Every reader of the American Bee Journal should have a copy of this book, as it answers hundreds of questions that arise about bees. We mail it for $1.25, or club it with the Bee Journal for a year—both together for only $2.00.

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

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Editorial Comments.

Unsigned Contributions, when received at this office, generally are given a bee-line for the waste-basket. We must know who the writer is, else we cannot use the production. We do not object so much to a *nom-de-plume*, but we desire to know who is using it. But, after all, it is ever so much better to use your own name when writing for publication—it gives greater value to your contribution.

◆

New York Foul Brood Law.—The American Bee-Keeper says that under the law, the head of the State Department of Agriculture (presumably of the State of New York) is authorized to appoint a "bee-agent" if five bee-keepers of any county petition such an appointment, alleging that foul brood exists there. The agent so appointed receives $2.00 a day, which is paid by the county seeking the appointment, and it is his duty to locate the hives contaminated by the disease, and direct the owners to burn them.

◆

Bee-Keepers' and the Wine-Cup.—Here is one of Dr. Miller's "stray straws" found in Gleanings for Nov. 15:

> A writer in one of the German bee-journals thinks bee-conventions will be better if discussions are held with wine-cup in hand. It doesn't work that way over here. At Buffalo, a man who had evidently had the wine-cup, or some other cup a bit too much in hand, seemed to be trying to hinder useful discussion. His friends should put a seal on his lips in conventions hereafter, or else keep close watch on what passes his lips before coming.

Yes, the President of the Buffalo convention has a very distinct recollection of at least one winebibber, or "bibber" of something stronger, at that meeting. If that's the way it works with only *one* who had tarried too long at the wine (or forty-rod), how would it be with a whole convention with hands and stomachs full of that which makes fools out of otherwise sensible and sober men? No, no; too many who *begin* with the wine-cup *end* in the gutter and drunkard's grave. The best way is to do as almost every one of America's best and most prominent bee-keepers do—"touch not, taste not, handle not" the accursed stuff.

◆

The Illinois State Bee-Convention was held at Springfield, Nov. 17 and 18, in the State House. The officers elected for the ensuing year are as follows:

President, J. Q. Smith, of Lincoln: Vice-Presidents, C. P. Dadant, A. N. Draper, S. N. Black, George Poindexter, and George W. York; Secretary, Jas. A. Stone, of Bradfordton; and Treasurer, Chas. Becker, of Pleasant Plains.

Messsrs. Black, Smith and Poindexter were appointed a committee to wait upon the Governor to ask that one commissioner to the Trans-Mississippi Expostion at Omaha in 1898 be a bee-keeper.

Messrs. Stone, Becker and Black were selected as the committee on exhibits of honey, beeswax, etc., at the next Illinois State Fair.

◆

Joining the New Union.—We wish to call special attention to Hon. Eugene Secor's suggestions about the work of the United States Bee-Keepers' Union, on page 771 of this number of the Bee Journal. Mr. Secor is the Union's able General Manager, and only waits for plenty of financial ammunition and consequent enlarged membership before firing the Union's broadside against the enemy. Are you, reader, among the members of this new and honorable body? If not, why not send your dollar for annual dues when renewing your subscription? We will see to it that all such money is forwarded to Mr. Secor, who will then mail you a receipt. Or, if you prefer, keep him busy the next two months by sending your dollars direct to the General Manager—Hon. Eugene Secor, Forest City, Iowa.

◆

A Record "Take" of Honey is what the British Bee Journal calls the amount secured from a single colony in one season, probably the largest ever taken in the British kingdom. Mr. Lancelot Quayle is the man who made the achievement. The colony not being abundantly supplied with stores for winter, it had candy given in the spring, and as soon as brood-rearing began it was kept regularly supplied with syrup. The hive contained 12 frames (probably the standard 14x8½), and the hive was filled with bees and brood. The second week in June shallow extracting-combs spaced 1¾ inches were given in supers, the first extracting was July 13, and the last Sept. 1. The total "take" was 334 pounds. The French Revue copies the report, and not to be outdone gives a yield about 2 pounds larger, by M. J. Carbonnier, in the year 1892.

◆

The Consumption of Honey is a subject on which Editor Abbott, of the Busy Bee, discusses in a short item in his September number. Mr. Abbott practices what he preaches, in this line at least, and if only the rest of our population would "follow suit" there wouldn't be one-tenth enough honey produced annually in this country to supply the demand. Hear what Mr. Abbott has to say:

> I think it was Horace Greeley who said that the way to resume specie payment was to resume. So I say the way to increase the consumption of honey is to consume it. I often read in bee-papers about what a great mistake people make who do not use it instead of other sweets, yet you might dine with the people who are interested in the publication of such papers many times and not find any honey on their table.
>
> I have frequently noticed in traveling over the country the absence of honey from the tables of those who produce

honey, or get their living out of the honey-business. If we do not do our part in consuming our own product, how can we go to others and urge upon them the importance of a honey diet? The editor of the Busy Bee eats honey three times a day at the rate of about 15 pounds per month, and he has no hesitancy in saying that honey has been one of the means of taking him from a chronic state of invalidism. People who have any tendency to stomach trouble should refrain from the use of all sweets except honey. Most of these will find that they can eat extracted honey not only with impunity but with decided benefit.

One of the things that makes it hard for me to spend any length of time away from my home is my inability to get honey, and I am sorry to say that I find this delicious and healthful article of diet absent from the table of those who keep bees about as frequently as I do from the table of those who do not have any bees, and have to secure what honey they use in the open market.

I have thrown out these few hints that the honey producers may do a little thinking along this line, and ask themselves if they "practice what they preach."

We are with Mr. Abbott on the subject of eating honey, only we hardly have the capacity of 15 pounds per month. Perhaps if we were as long and lean and lank as our fellow editor, we, too, could "get away" with as much honey as he does.

But Mr. Abbott makes a good point in the above, and it is high time that all bee-keepers' families were using honey more freely, and less of the trust and monopolistic sugar. Try it for a change, if you have not been doing it already.

The Seneca Co., N. Y., Convention will meet in the Fireman's Rooms at Romulus, Thursday, Dec. 16, at 10 a.m. The announcement says that "the ladies are requested to come prepared to serve dinner and supper." Nothing small about that invitation, is there? Among the subjects to be discust are these:

Arrangement of Out-Apiaries—Charles Baldridge.
Shipping Comb Honey—M. T. Williamson.
The Problem of Wintering Bees—G. M. Doolittle, the "convention king."
Experience of a Novice—Prof. W. E. D. Gibson.
Comb vs. Extracted Honey for Profit—J. C. Howard.
Relation of Bees to Horticulture—J. B. Whiting.
The Problem of Bee-Pasturage—Mr. Spencer, of Cornell Experiment Station.

For further particulars, if desired, address the Secretary, C. B. Howard, Romulus, N. Y.

Beeless Honey.—The following is reported as a portion of the conversation recently held by Mr. and Mrs. Citybug:

Mrs. Citybug—"Our grocer now delivers his goods in one of those new horseless wagons."

Mr. Citybug—"Horseless wagons, eh! Well, he's been giving us cowless butter and beeless honey; I suppose the next thing will be henless eggs."

Apicultural Experiments are in contemplation by the Division of Entomology of the Department of Agriculture, at Washington, D. C. In a report issued by Secretary Wilson, in October, we find the following under "Entomological Investigations in Contemplation:"

"Experiments in apiculture come properly under the head of 'Entomological Investigations,' and will be resumed under capable supervision. The honey-producing industry is a large and growing one, and deserves some slight encouragement at the hands of the Government."

We are glad to see that our Government realizes the growing importance of apiculture, and intends to lend some encouragement to it, even tho it be "slight." We would like to suggest that among the first things investigated, the adulteration of honey would be the most promising, and then keep on until a national pure food law is enacted by Congress. We believe that no other line of investigation and practical work would result in so much benefit to honey-producers as along this very line. While this might not be exactly "entomological," it would be a great "encouragement" to bee-keeping.

The Weekly Budget.

THE A. I. ROOT CO. will have a display at the Trans-Mississippi Exposition at Omaha, next year. The Busy Bee says it will be a fine one.

MR. C. B. BANKSTON, of Burleson Co., Tex., writing us Nov. 28, said:

"We are having a very warm winter here, and the bees are in fine condition."

THE G. B. LEWIS CO. report a very large business during the past season, and they have begun to prepare for a much larger business in 1898. They, too, will be at Omaha.—Busy Bee.

VIRGIL V. ROUSH, of Adams Co., Ohio, sends the following with his renewal subscription:

"I am well pleased with the Bee Journal. It has been a great help to me."

MR. THOS. SHOTBOLT, of British Columbia, writing us Nov. 20, said:

"Bees on Vancouver Island have not been a success the past season. I am going to do what I can to produce the best forage for my bees. I am only an amateur, but take great interest in apiculture."

MR. D. W. HEISE—one of the most respected and gentlemanly Canadians at the Buffalo convention—reports in the Canadian Bee Journal that at that meeting he was several times taken for Mr. Ernest R. Root, editor of Gleanings. He jocosely says that it sort o' inflated him, and that he may soon start a paper, to be called "Gleanings in Canadian Bee-Culture." But we think with proper care and sufficient time he will recover.

MR. W. A. PELLEW, of Nevada Co., Calif., wrote us as follows Nov. 27:

"I have been confined to the house all summer. I am just able to walk on crutches now, but I take great interest in reading the American Bee Journal, and could not do without it. I got a neighbor of mine to send with me this year."

Wouldn't it be fine if every subscriber could send one new name with his or her renewal this month? We know at least two persons who would feel well at this end of the line.

MR. F. A. GEMMILL, of Ontario, Canada, at the time of sending his renewal for 1898, Nov. 30, wrote us:

"The American Bee Journal is worth far more than the amount of subscription, and having been a 'printer's devil' once, in my father's office, I feel that if a paper is worth receiving, it is certainly worth paying for in some way or another......Are you going to Hamilton? I will be there."

We regret our inability to be at the Hamilton convention of the Ontario Bee-Keepers' Association this week. We trust it may be a grand good meeting, as it can easily be if *all* will try to make it so.

MR. JOSEPH NYSEWANDER—a prominent bee-supply dealer of Iowa—and also his store, are shown in Gleanings for Nov. 15. It seems that "Joe" was once in the employ of The A. I. Root Co. as a stenographer, and after about a two years' stay with them he went to Iowa, started in the bee-supply business, employed a good looking stenographer of the "female persuasion," and then up and formed a life partnership with her. Editor Root says that as a result, "the business boomed as it had never done before." And now Mrs. N. can enjoy a *nice wander* (Nysewander) over their large place of business or around the town, any time she chooses; almost equal to a pleasant *ramble* with the noted California "Rambler."

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Building in Circular Sections—Hinging the Bottom-Board.

1. Can bees be induced to fill out perfectly on all sides with comb a circular section four inches in diameter, inside measurement?

2. Have you ever tried the experiment of hinging the bottom-board of a hive at the back end so that you can lower or raise the front end at pleasure? Of course the bottom-board must fit on the inside of the side boards, the latter projecting below it. W. H. L.

ANSWERS.—1. I have no doubt they could.

2. I have never tried the experiment myself, but a good many years ago I saw such hives in use. The hive stood on four legs, and I believe the intention was to let the bottom slant down so the worms would roll down on the ground when they fell on the floor. Needless to say, it was a failure in that respect, and it could hardly have an advantage in any respect that would not be overbalanced by the disadvantages.

Working for Honey vs. Increase.

I have as many colonies as I care to keep. I work for comb honey exclusively, and cannot prevent swarming, and as there is not much sale for bees here I think I will hive the swarms in shallow extracting-supers so they will not have much room for honey in the brood-chamber, and will be compelled to put most of the honey in the sections. Then in the fall I will kill the bees and render the brood-combs into wax. What do you think of the above plan? Will it be necessary to put queen-excluders over these shallow brood-chambers to keep the queen out of the sections? OHIO.

ANSWER.—Your plan is much like that practiced by John F. Gates, and he reports great success. He lays stress, however, on having very strong colonies for his breeders, that is, the ones from which the swarms issue. Instead of killing the bees in your shallow hives, you will probably do much better to follow Mr. Gates' plan and unite the bees in the fall with the parent colonies. With shallow hives, you may count pretty surely on the queen's going up into the extracting-super unless you use excluders.

Best Hive and Fixtures for Producing Comb Honey, and for Extracted.

I have 180 colonies, and not an empty hive. My frames are Root's Simplicity.

1. What hive and fixtures are best for comb-honey production?

2. And what hive is best for extracted honey-production?

3. Is it best to use queen-excluders for producing extracted honey? MISSOURI.

ANSWERS.—1. Taking into consideration the fact that one bee-keeper prefers one kind, while another prefers something different, each one alike successful, the probability is that there isn't after all much difference, and whatever one has already on hand is likely the best thing for him, and surely he should not make a change unless he can see some decided advantage in so doing. In the main the difference in hives and fixtures are not so much for the comfort and convenience of the bees as for the bee-keeper.

Perhaps the important question is not so much the kind of hive as the size. Clearly a hive may be too large or too small. Hive a swarm in a hogshead, and it is doubtful whether sections placed thereon would ever be filled. Hive them in a peck measure and they may fill a lot of sections, but will hardly celebrate their next anniversary. Somewhere between the hogshead and the peck measure ought to be a size best suited. As to where that point lies there has been much controversy. At one time there was a tendency to smaller hives than had been used, but latterly the tide seems to run the other way. If you hive a swarm next summer in a 6-frame hive, it may give you more surplus than if hived in a 12-frame hive, considering merely the one season's crop, but you must consider also the future, and especially the well-being of the colony through the coming winter.

Left mainly to itself, it is doubtful if an 8-frame hive will always have stores enough for winter, if indeed it has bees enough. In the hands of a man who pays little attention to his bees, a 10-frame hive is safer. That's equivalent to saying that for the majority of bee-keepers an 8-frame hive is too small. On the other hand, the man who attends very closely to the wants of his bees, may be satisfied with an 8-frame hive. He sees to it that they are properly supplied with winter stores, and perhaps will tell you that practically he considers neither the 8 nor 10 frame large enough, except it may be during winter, providing he cellars his bees. During the spring he allows his colonies two stories, and when the harvest comes one story is removed, but the room is rather increast than diminisht, for abundant room is given in supers. At the close of the harvest the super room is replaced by the second story returned, not to be removed till the next harvest, unless wintering in the cellar makes it advisable to reduce to one story for the sake of easier handling and having the hives occupy less room in the cellar.

Now you haven't a direct answer to your question, but from the data given perhaps you can decide what is best for you.

2. When working for extracted honey, it is not necessary to crowd the bees so much in the brood-chamber to get them to work in the super as it is when working for comb honey, so it is pretty generally agreed that 10-frames are few enough for extracted honey, and some prefer more.

3. It is neither pleasant nor desirable to extract from frames that contain brood, so it is better to make sure that the queen keeps below by using a queen-excluder. It is also considered by some that the honey is not quite so nice and white when extracted from black combs, and so by means of an excluder they keep the queen below, and for extracting keep a set of combs that have never been used for brood.

Foul Brood Treatment.

I have had bees on a small scale for over 50 years, and have not had or seen a case of foul brood, until now. I think I have at least two colonies that contain foul brood, and as it is too late in the season to try to cure them now, what would you advise me to do with them? They are full of bees and heavy with honey, as they have gathered no surplus this season. If they would live until the first flow of honey in the spring, I think I could save them. In your opinion will the treatment adopted by Wm. McEvoy, and publisht in the Bee Journal in 1893, effect a cure? Is it reliable? Mr. McEvoy says that it is wholly unnecessary to wash or otherwise disinfect the hive, but advises to burn up the frames. NEBRASKA.

ANSWER.—Mr. McEvoy is a man who has had a very unusual opportunity for becoming thoroughly acquainted with foul brood, and according to all testimony he has been very successful in its treatment. The A. I. Root Co., while placing confidence in Mr. McEvoy, would not agree with him as to using hives without any treatment. Their plan would be to put the hive in a tank of boiling water, or else to wet the inside with kerosene and burn it out.

Swarming in Midst of Honey-Flow.

In this locality my experience has been that when a swarm has been hived in the month of May or June, in nine cases out ten it will swarm in about 21 days, which brings it just in the midst of our main honey-flow, which is basswood and white clover, consequently we get scarcely any surplus honey from either. How had I best proceed to prevent a prime swarm from casting a swarm? I use the 8-frame dove-tailed hive. Do you think that a 10-frame hive would be better? MINNESOTA.

ANSWER.—I think your experience must be very exceptional. Indeed it is probable that in general not one in 10, if indeed one in 50, prime swarms casts a swarm three weeks after being hived, and nine in ten is something I never before heard of. I wish you had told us whether other bee-keepers in your locality have the same experience. And I wonder whether there isn't something in your treatment that produces such results. Possibly you give help to the swarm in the way of empty combs, or brood, or both. If so, then the thing for you to do is to hive swarms in hives that are empty, or with foundation at most. Larger hives would help. Younger queens might help.

If every other means fails, you probably would succeed in this way: When the prime swarm issues, kill the queen and return the swarm. Then in a week or so later you'd have a young queen swarm with a still larger force than issued with the old queen, and you could count with certainty on no more swarming, unless you have a strain of abnormal swarmers. If your queens are all clipt, the bees will take care of the matter themselves; the swarm will issue one or more times with the old queen, and then she will be put out of the way, and eight days or so after the swarm first issues it will come out with a young queen.

BEEDOM BOILED DOWN.

The Solar Wax-Extractor, according to W. Fitzky in Centralblatt, is the invention of G. Leandri, who exhibited it in 1881 at the Exposition at Mailand. Dr. Dubini made an important improvement by adding a reservoir to receive the melted wax.

Paraffine Paper Over Sections.—The Canadian Bee Journal says that no bee-keeper anxious to produce first-class honey in sections, and willing to master the business, should use such paper; that it is not necessary, and that the best filled sections cannot be secured without a bee-space above the sections.

Small Hive-Entrance for Winter.—Jacob Alpaugh, in wintering bees, has slight upward ventilation in the hives, and when decidedly cold weather comes, closes the entrance with a piece of card-board which has cut in it a hole half an inch square. This hole he has never had clogged, and when the bees want more entrance they can gnaw it.—Canadian Bee Journal.

Staple Spacers for Top-Bars.—The A. I. Root Co. announce that because some do not like the Hoffman frame they will now furnish their customers, on option, plain frames with thick top-bars and staples for spacers. The staples are the same that have been in use the past season as end-spacers. Frank Boomhower, of New York, and his neighbors have been using these staples as side-spacers with great satisfaction.

When to Extract.—"The best time to extract honey is just as the bees begin to cap the comb. Thus the labor of uncapping is avoided, and the honey is in good condition for the extractor."—American Bee-Keeper. But how about being in good condition for the consumer? Better put an eke under that paragraph telling the beginner that if he has no way to ripen it artificially, he better wait till the bees "cap the comb" entirely.

Smoker Fuel.—In a large dish stir about ¼ pound flour into cold water, making a thin pap. Into this stir ¼ pound saltpeter, previously dissolved in hot water. Add two quarts of warm water and mix well. Then fill the dish with coarse sawdust and knead thoroughly as a baker kneads dough. Form with the hands into egg-sized balls, squeezing out the superfluous water. When thoroughly dried break into nut-sized pieces and use in the bee-smoker.—Gravenhorst's deutsche illustrierte Bienenzeitung.

Foundation and Extracting.—The Canadian Bee Journal copies without comment an article from the Kansas Farmer which contains two items that would hardly be endorst by all bee-keepers:

"One pound of comb foundation when drawn out and completed will hold about 50 pounds of honey......Honey for the extractor, like comb honey, is the best taken as the bees store it, and not left on the hive any longer than it is ready to come off."

No-Bee-Way Sections.—Gleanings presents a picture showing at the same time a case of the ordinary sections and one of the no-bee-way style. The illustration is not a remarkable success in the way of showing the difference between the two, but the reader is told to illustrate it for himself. Take the ordinary section that has been filled with the use of separators, and plane off the bee-ways so that the sides of the sections shall be of the same width as the tops, or straight all-around. Comparing it with one not thus planed down, it has a fuller look, because more nearly filling up the wood. The editor is inclined to the belief that by using the fence separators, the bees having a chance to go back and forth through the slats have a tendency to fill out the combs a little fuller, and are also less inclined to leave a hole at each of the four corners. The editor mentions that such sections were advertised by G. B. Lewis nearly 16 years ago, but, as sometimes happens, the times were not ripe for them.

Extracting—How is It?—J. F. McIntyre said at Buffalo convention that the bees stored less honey for a time after extracting, being engaged in cleaning up and repairing. The Canadian Bee Journal says that is a strong argument for extracting only part of the combs at a time, so the bees could keep right on storing in the untoucht combs. Now comes the American Bee-Keeper, and says that would only make double trouble; "the number of gorged bees and general confusion would be but slightly increast by complete extracting, as compared with the drouble-trip plan suggested."

Using Box-Hives.—Cl. Laurent, in Le Progres Apicole, advises as the most profitable way to keep box-hives in combination with frame hives. In November or February, place a box-hive with a strong colony as near as possible to a colony in a frame hive; in the spring stimulate strongly the box-hive colony; at the time of the grand harvest take from the box-hive an artificial swarm and give to the frame hive, after giving the same scent to both colonies; and set the box-hive on a new stand at some distance, where its colony may build up ready to go through the same performance a year later. The colony in the frame hive will give good results even in a middling season, but it is absolutely essential to have strong colonies to begin with. A handful of bees won't do. This is a little after the plan of John F. Gates, only he let his mammoth colonies in box-hives swarm naturally, taking no honey from them, but keeping them as breeders.

Can Field-Bees Become Nurse-Bees?—The discussion upon this question has been somewhat animated in Germany. Gerstung asserted as a principle that the brood impulse, like every other impulse, when once satisfied becomes extinguisht—old bees are no longer capable of nursing or building comb. Others scouted the idea, and an instance was given in which a colony was removed while field-bees were flying, but no young bees playing, and then the field-bees were allowed to return to a hive with no young bees and only *unsealed* brood, the queen being allowed to remain. Work went on all right, the young larvæ were swimming in food, the queen was fed, and laid, and the opposers of Gerstung said his statement was neither truth nor poetry, but error.

A. Bohnenstengel, in an article in Deutsche Imker aus Boehmen contends that this last case proves nothing, as it was entirely possible that in the excitement of brushing out the bees some of the younger bees should have joined the force, and that they were the ones that did the feeding and comb-building. He seems to take to some extent a middle ground, admitting that the younger of the field-bees may act as nurses. He quotes Stachelhausen, of Texas, who had queens reared by old bees, but found them in every case inferior.

The practical part of the whole question, perhaps, has its chief interest in connection with queen-rearing. Wherever the exact truth may lie, it is certainly a safe thing not to depend on old bees for queen-rearing.

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Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Inversion to Get Bees Into the Sections.

Query 64.—1. Did you ever practice inversion to get colonies to work in sections?

2. And is there anything to be gained by inversion at any time?—VT.

Jas. A. Stone—1. No.

W. G. Larrabee—1. No.

Prof. A. J. Cook—1. Yes. 2. Yes.

Rev. M. Mahin—1. No. 2. I think not.

Mrs. L. Harrison—1. No. 2. I don't know.

J. M. Hambaugh—1. No. 2. I don't know.

E. France—1. No; it is out of my line of work.

C. H. Dibbern—1. Yes. 2. Very little, if anything.

Dr. C. C. Miller—1. I never needed to. 2. Doubtful.

R. L. Taylor—1. Yes. 2. Yes, but I think not enough to make it profitable generally.

Dr. J. P. H. Brown—1. I never practiced it, because I never could see that I could gain anything by it.

Chas. Dadant & Son—1. No. 2. Yes, you can get them at work in the sections faster, but it does not pay for the trouble.

G. M. Doolittle—1 and 2. My experience says there is little gain in inversion save in having the brood-combs built solid to the frames at all points.

Eugene Secor—1. When the "reversible" craze was on I tried it a little. 2. There are certain conditions possible where inversion may be advantageous.

Wm. McEvoy—1. No, I work or manage the business so as to have little or *no capt* honey between the brood and the sections during the honey-flow.—2. No.

G. W. Demaree—1. I never practiced inversion, because it required but little experimentation to satisfy me that there is nothing in the inversion system—nothing for me in it.

J. A. Green—1. Yes. 2. When things work right there is a great gain, but it is not practical on a large scale, or without expert knowledge of the proper condition, coupled with close attention.

Emerson T. Abbott—1. No. I have never had any trouble about getting colonies to work in the sections when there was a good flow of honey, and the colony was strong enough to go above. 2. I doubt it.

A. F. Brown—1. Yes. 2. Yes, in getting combs built clean down and fastened to the bottom-bars; also to get frames filled with brood. I do not think inversion practical for getting colonies to work in sections. What is far better is a sectional hive, then interchange places with the two sections. This brings the brood right to the top of the hive, close to the sections.

J. E. Pond—1. Yes, to some extent, but I have not found results such as

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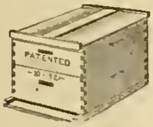

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would pay for the trouble in so doing. 2. I cannot see that there is anything to be gained by inversion at any time, at least I have not found any gain by inverting. If one attempted to follow all the "fads" that are mentioned from time to time, his time would be so taken up that he would have no opportunity to take care of his honey supply.

General Items.

Bees in the Cellar.

We have 2 inches of snow this morning, and more coming, but the weather is mild and gentle. Bees are in the cellar, the last going in yesterday, in fine condition. They had a fine flight the previous days, but more than half went in on the 16th, after having been kept in by cold for two weeks; they are not in so good condition.

S. T. PETTIT.

Ontario, Canada, Nov. 23.

Report for 1897.

I got 75 pounds per colony of comb honey the past season. I have put the bees into winter quarters in the best condition since I have been keeping bees. They did well around here this year. I am making the bee-business a study, and have all the leading text-books, and take the "Old Reliable," which has come for three years without a single mishap.

S. A. MOATS.

Ritchie Co., W. Va., Nov. 26.

Forced to Quite Bee-Keeping.

I am forced to go out of the business of *trying* to produce honey. Poor, POOR, POOREST, is the record for three years; in fact, I have had but one fairly good crop in 10 years. Wild flowers plowed up, alfalfa all dead, and ditto all other varieties of clover. There are but a few favored localities in this State for the apiarist. I regret to be obliged to record such a gloomy condition of affairs, but it is the truth.

A. C. TYRREL.

Madison Co., Nebr., Dec. 1.

Cypress Lumber for Hives.

In answer to the query on page 745, about cypress lumber for hives, I would say that three years ago I purchast 50 colonies of bees in Atchison Co., Mo., in old-fashioned hives made of cypress lumber, and I was informed that the bees had been continuously in them for 40 years; yet, when I transferred the bees, soon afterwards, the hives were in a good state of preservation, altho never painted. I have used cypress to a limited extent for the last two years in the construction of hives, and regard it next, if not equal, to white pine. The cypress we get here is entirely free of knots, and the price the same as white pine. Yellow pine I regard the poorest lumber for hives in existence.

J. L. GANDY.

Humboldt Co., Nebr.

About Rearing Queens.

Perusing the pages of the American Bee Journal I find to be foremost among many pleasures. The queen-talk therein of late, to me, is very impressive. My responsive cord was toucht by an article on page 722, by Dr. J. P. H. Brown, on "Queen-Rearing —Some Concise Directions," especially the part relative to the age of bees necessary for the best cell-building.

A colony was found queenless the latter part of April, with a small amount of capt brood and three or four queen-cells, almost ready to hatch; but not being of the preferred "denomination," they were disposed of without ceremony, and select larvæ for

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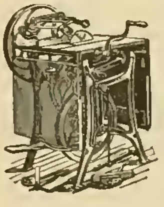

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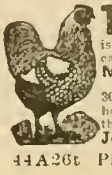

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READERS **Of this Journal who write to any of our advertisers, either in ordering, or asking about the Goods offered, will please state that they saw the Advertisement in this paper.**

Bee-Keepers' Photograph.—We have now on hand a limited number of excellent photographs of prominent bee-keepers—a number of pictures on one card. The likeness of 49 of them are shown on one of the photographs, and 121 on the other. We will send them, postpaid, for 30 cts. a card, mailing from the 121 kind first; then after they are all gone, we will send the 49 kind. So those who order first will get the most "faces" for their money. Send orders to the Bee Journal office.

the rearing of another placed instead. In due time three cells were built, but on looking into the hive three days previous to their time of hatching, I found the bees very greatly reduced in numbers. We immediately, from other colonies, took four frames of hatching brood and placed therein. When removing the surplus cells, two days afterwards, I was elated over the force of young workers present. Thinks I, a propitious time indeed for the building of nice cells. So all cells were removed and larvæ were supplied as before. From this effort half a dozen nice cells were built, but in vain did we wait for them to hatch. Each cell, we found on opening, contained a dead queen that was nearly developt, with no royal jelly present, which naturally led me to conclude the feeders were at fault. If this is not a reasonable supposition, will some one please name the cause?

Maury Co., Tenn. N. F. Murphy.

Best Honey Crop Known.

We had the best honey crop ever known in this section of Ohio, the past season. I began in May with 16 colonies, increast to 23 colonies, and secured about 2,000 pounds of choice honey, and 300 or 400 pounds of dark. About two-thirds of it was comb honey, and I sold it mostly at "6 pounds for a dollar." The extracted brought me from 10 to 15 cents per pound, according to quality. I found sale for all my comb honey, and about one-half of the extracted.

I have reduced my colonies to 18, which have gone into winter quarters on the summer stands in double-walled hives in excellent condition. They have from 30 to 40 pounds of honey to the colony, are very strong with young bees, and I will expect them to be very strong in the spring, ready for the apple-bloom and locust, which usually give some surplus honey every year.

The American Bee Journal is a regular weekly visitor, always welcome, and carefully and profitably read.

Robt. B. Woodward, M. D.
Perry Co., Ohio, Nov. 28.

A Report for 1897.

We started in last spring with five strong colonies, increast to eight, and sold one about the end of fruit-bloom, thus leaving seven good colonies for the honey harvest.

Our best colony gave us 63 pounds of comb and 20 pounds of extracted honey—83 pounds in all. This amount is the largest crop we have taken from any one colony since we started with bees, in the spring of 1895, and is considered very good for this place. Our poorest colony gave 20 pounds of extracted honey, besides their own stores for the winter.

We took, in all, from the seven colonies, 183 pounds of comb and 135 pounds of extracted honey, making a total of 318 pounds, of very fine honey. This is a good showing for our location, as houses are being built up all around us very fast, causing the forage to become somewhat scarce of late. Our bees are all packt for the winter, and are in first-class condition.

Our grocery trade is booming at present, altho the competition is strong on all sides.

We received last week some of the finest white clover and buckwheat comb honey from the central part of New York State that we ever saw, and find a ready sale for it all at fair prices. We read the American Bee Journal and Gleanings regularly, and find much good and useful information in both papers. Holding Bros.

Hudson Co., N. J., Nov. 26.

Muth's HONEY-EXTRACTOR Square Glass Jars.
Root's Goods at Root's Prices.
Bee-Keepers' Supplies in general, etc etc
Send for our new catalog.
Practical Hints" will be mailed for 10c. in stamps. Apply to—
Chas. F. Muth & Son, Cincinnati, Ohio.
Please mention Bee Journal when writing.

Honey - Clovers !
We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
Alsike Clover.........	.70	$1.25	$3.00	$5.75
Sweet Clover (white).	.60	1.00	2.25	4.00
White Clover...	.90	1.60	3.75	7.00
Alfalfa Clover.........	.60	1.00	2.25	4.00
Crimson Clover........	.55	.90	2.00	3.50

Prices subject to market changes.
Add 25 cents to your order, for cartage, wanted by freight.
Your orders are solicited.
GEORGE W. YORK & Co.
CHICAGO, ILL.
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1-lb., $4.50 per gross; discount on quantities. Sq. with Corks.
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All kinds direct to consumers from the factory at wholesale prices. We save you 40% on HARNESS, BUGGIES, ROAD CARTS, SURREYS AND PHAETONS.
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FIRST CLASS GOODS.
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Write for Special Bargain Circular of staple Harness and Vehicles.
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Read our book of voluntary testimonials from our customers, and see what they think of Barkley goods and business methods. It will pay you to do so. We are selling direct to consumers, saving you the traveling man's expenses and dealer's profit. Send for cat. and prices
No. 1 "Barkley" Harness, $5.50 Best value ever offered. Good as any $12.00 shop harness made.
Reduced to $41.
Former Price $55.00
Famous "Barkley" Buggy, $41.00. Satisfaction guaranteed.
FRANK B. BARKLEY MFG. CO. CHICAGO, ILL.
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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Nov. 8.—Fancy white 11 to 12c. No. 1, 10c.; fancy amber, 8 to 9c.: No. 1, 7.; fancy dark, 7 to 8c.; No 1 and mixed, 7c. Extracted, white, 5 to 6c.; amber, 4½ to 5c.; dark, 3½ to 4c. Beeswax, 26 to 27c.

All of these grades vary in quality and style of package, which makes it difficult to tell just what a certain colored honey will bring without knowing flavor and body thereof. Sales are of small amounts, and supply abundant. Beeswax is wanted at price quoted.

San Francisco, Calif., Oct. 27.—White comb, 1-lbs., 7½ to 9¼c.; amber, 4 to 6c. Extracted, white, 4¼ to 4¾c.; light amber, 3½ to 3¾c.; dark tule, 1¾ to 2¼c. Beeswax, fair to choice, 22 to 24c.

There is a tolerably firm market for choice to select water white, both comb and extracted, with not much of the same offering. In a small way on local account higher rates than are quotable are realized. Dark grades fail to receive any special attention, despite the fact that such are obtainable at low figures. There is no lack of demand for beeswax, and not much offering. At the same time, wholesale buyers refuse to operate at any advance on previous rates.

Philadelphia, Pa., Nov. 13.—Fancy white, 13 to 14c.; No 1, 12c.; fancy amber, 10c.; No. 1, 9c.: No. 1 dark, 8c. Extracted, white, 5 to 5½c.; amber, 5c.; dark, 4 to 4½c. Beeswax, 27c.

Honey is arriving very freely; market is a little off. Beeswax is in good demand.

Buffalo, N. Y., Nov. 19.—Trade is more quiet, and only the fanciest is moving satisfactorily at 10 to 11c.; other grades require pushing and cutting to move much, at from 9 to 6c., as to actual grade. Supplies are not large. Fancy can be easily placed. Extracted moves fairly well at 6 1-2 to 4c., as to color, etc.

Albany, N. Y., Nov. 8.—Fancy white, 13c.; No. 1, 12 to 12½c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c ; fancy dark, 8 to 8½c.; No.1, 7½ to 8c. Extracted, white, 5 to 6c.; amber, 4½ to 5c.; dark, 4 to 4½c.

Our honey market is active and stock moving off rapidly at quotations. Fancy white comb is scarce.

St. Louis, Mo., Nov. 8.—Fancy white, 11 to 12c.; amber, 9 to 10c.; dark, 7 to 8c. Extracted, white, 5¼ to 6c.; light amber, 4½ to 5c.; amber, 4 to 4½c. Beeswax, prime, 24 to 24½c.

Remand is rather light for this season of the year.

Boston, Mass.; Nov 8.—Fancy white, in cartons, 13c.; No. 1, 11 to 12c.; fancy amber, 10c. Ex-tracted, white, 6 to 7c.; amber, 5 to 5½c. Beeswax, 28c.

No. 1 and fancy honey has sold well during the past 10 days, but off grades and light weight is going slowly. Beeswax is in good demand and but little here.

Kansas City, Mo., Nov. 8.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.; fancy amber, 10c. No. 1 9 to 10c.; fancy dark, 9c.; No. 1, 8. Extracted, white, 5½ to 6c.; amber, 5 to 5½c.; dark, 4 to 4½c. Beeswax, 22 to 25c.

Receipts of comb honey are large; extracted is light.

Minneapolis, Minn., Nov. 8.—Fancy white, 10½ to 12c.; No 1, 9 to 10c.; fancy amber, 9 to 10c.: No. 1, 9c. Extracted, white, 5 to 6c.; amber, 4 to 5c.

Demand is good, prices are firm, and supply only moderate—best time so far this season to ship.

New York, N. Y., Nov. 8.—Fancy white, 12c.; No. 1, 10 to 11c.; fancy amber, 9 to 9½c.; No. 1, 9c.; fancy dark, 8½c.; No. 1, 8c. Extracted, white, 5 to 5½c.; amber, 4½ to 5c.; dark, 4c. Beeswax, 26 to 27c.

Our market does not show much activity and comb honey is moving off rather slowly. The receipts are large and the stock is accumulating. While choice grades of white are likely to find sale at present quotations, prices on off grades and buckwheat will have to be shaded in round lots. Southern in barrels is in good demand at 50c. a gallon, for average grade.

Detroit, Mich., Nov. 9.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c.: fancy dark, 7 to 8c. Extracted, white, 5 to 6c.; amber, 4 to 5c. Beeswax, 25 to 26c.

Cleveland, Ohio, Nov. 9.—Fancy white, 12 to 13c.: No. 1, 11 to 12c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c.; fancy dark, 7 to 8c. Extracted, white, 6½c.; amber, 5½ to 6c. Beeswax, 28c.

Milwaukee, Wis., Nov. 8.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c. Extracted, white, 5½ to 6c.; amber, 4½ to 5½c.: dark, 4 to 4½c. Beeswax, 25 to 27c.

The market is in good condition. Receipts are liberal, demand fair, and values fairly sustained on finest grades of honey, both comb and extracted. We are looking for an increased consumption of honey this season, as the cost is not high, and is an unequalled substitute for butter to any or all who cannot afford to buy the best butter.

Indianapolis, Ind., Nov, 8.—Fancy white, 11 to 13c.; No 1, 9 to 10c.; fancy amber, 9 to 10c. Extracted, white, 5 to 6c. Beeswax, 25c.

Demand for fancy white comb honey and fancy white extracted is exceptionally good, while there is almost no demand for dark or amber comb or extracted honey.

Cincinnati, Ohio, Nov. 6.—Fancy white, 11 to 13c.; No. 1, 10 to 12c.; No. 1 amber, 8 to 10c.; No. 1 dark, 7 to 8c. Extracted, white, 5 to 6c.; amber, 4to 5c.; dark, 3½ to 4c. Beeswax, 22 to 25c.

Demand is slow for extracted and comb honey, with a good supply, while beeswax is in good demand, with a fair supply.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co.. 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN,
120 & 122 W. Broadway.

Kansas City, Mo.
C. C. CLEMOMS & Co., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & CO., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Cleveland, Ohio.
A. B. WILLIAMS & CO., 80 & 82 Broadway.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.
Mr. Selser handles no honey on commission

St. Louis, Mo.
WESTCOTT COM. CO.. 213 Market St

Minneapolis, Minn.
S. H. HALL & CO.

Milwaukee, Wis.
A. V. BISHOP & CO.

Boston, Mass.
BLAKE. SCOTT & LEE., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. MCCULLOCH & CO., 380 Broadway.

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UNTIL FURTHER NOTICE, we will allow 28 cents per pound for Good Yellow Beeswax, delivered at our office—in **exchange** for Subscription to the BEE JOURNAL, for Books, or anything that we offer for sale in the BEE JOURNAL. **Or, 25 cts. cash.**

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Queens and Queen-Rearing.—If you want to know how to have queens fertilized in upper stories while the old queen is still laying below; how you may *safely introduce* any queen, at any time of the year when bees can fly; all about the different races of bees; all about shipping queens, queen-cages, candy for queen-cages, etc.; all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know—send for Doolittle's "Scientific Queen-Rearing" — a book of over 170 pages, which is as interesting as a story. Here are some good offers of this book:

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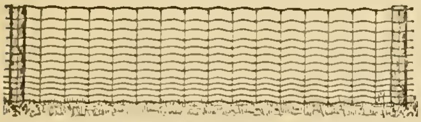

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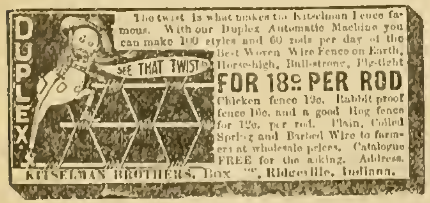

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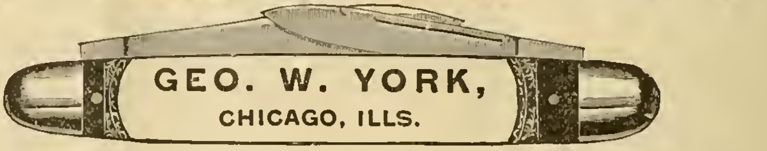

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How appropriate this knife is for a Christmas, New Year or birthday present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, a lady to a gentleman, or vice versa, a son to a mother, a husband to a wife, a brother to a sister or a gentleman to a lady—the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

How to Get this Valuable Knife.—We send it postpaid, for $1. , or give it as a Premium to the one sending us **three new Subscribers** to the BEE JOURNAL (with $3.00), and we will also send to each new name a copy of the Premium Edition of the book "Bees and Honey." We club the Novelty Knife with the BEE JOURNAL for one year, both for $1.90.

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37th Year. CHICAGO, ILL., DECEMBER 16, 1897. No. 50.

CONVENTION PROCEEDINGS

Report of the Buffalo Convention of the United States Bee-Keepers' Union.

BY DR. A. B. MASON.

[Continued from page 774.]

[As this report is not as full as it was hoped to make it, we have decided to omit all reference to particular days or sessions when any paper was read, etc., and simply go ahead and publish all we have on hand concerning the convention proceedings.—EDITOR.]

P. H. Elwood.

A. E. Manum.

Mr. Geo. W. Brodbeck, of California, sent the following paper:

Co-Operation Among Bee-Keepers.

We are living in an age when the presentation of practical problems is commanding more attention than at any time in the world's history. We meet with evidences of this on every hand; the labor agitations, the manufacturing combines, the various exchanges and other co-operative organizations, all point to one object, and that is, to advance and protect the interests represented.

The existing state of things to-day demand just such organizations, and no class can stand aloof and expect to successfully combat surrounding influences without organization. The producing element to which we belong should be especially interested in the solution of this problem, but unfortunately, we are, as yet, in a chaotic state, drifting about on the sea of circumstances, hoping for the good that "might have been" but never comes.

The conditions that present themselves to the bee-keepers of the United States to-day are not theories, but plain, every-day facts, and you can scarcely refer to a copy of any of our bee-periodicals that does not contain an article bearing on some of the evils now existing. The theories adduced have been more numerous than the colors of the rainbow; some claiming that it is due to over-production, while another that it is under-consumption, others that adulteration is the cause, while, last but not the least of all, improper distribution is responsible.

The first course of a physician with a diseased patient is a proper diagnosis of the case, and we claim that the diseased condition of our industry has been diagnosed minutely, and every one of the symptoms re'erred to proved to exist, and if this is true, we have reacht the most serious stage of our industry, for if adulteration exists to the extent claimed, and continued, what will be the result? If there is an over-production and the output on the increase, where is our remedy? If it is under-consumption in one section and vice versa in another, how are we going to equalize this? If over-production is not more than the result of improper distribution, where is our machinery to relieve this condition? The remedial stage is the most difficult of all to the experimental physician, but to the man of experience the selection of a remedy is not an experiment, for positive results always follow positive remedies.

In our present condition we also have a positive remedy, and, while we do not claim it a "cure-all" for every ill that besets the bee-industry, we do claim it has proved its efficacy in the cure of the diseased state of kindred industries, and we do not hesitate to second the advocacy of co-operation as a positive remedy for our own relief, and it is evident that what it has done for other producers it can do for us.

Co-operation in this State has completely revolutionized former methods in the disposal of the various industrial products. The thrifty, wide-awake producer, who, a few years ago, saw nothing but disaster staring him in the face; with the grip of the middle man tightening his grasp more and more as the years past by: with a far distant market; a perishable product, prohibitory freight rates, and many other seemingly insurmountable difficulties, all of which have been overcome by the indomitable will and perseverance of the California fruit power.

The California Bee-Keepers' Exchange, altho of recent growth, is proving a potent factor in this, its first season's experience, in the upholding of prices, reducing to a minimum the cost of supplies to its membership, and instilling a feeling of protection that never existed before; and we predict that if the business of this organization is conducted in accordance with the outlined footsteps of the California fruit-growers, like success is sure to follow.

Co-operation has its opponents as well as exponents, and there will be those present who will take decided issue with the views presented, but the truth will always bear investigation.

Opposition to co-operation as a rule is due to two sources—misinterpretation of it objects, and selfishness. The true spirit of co-operation is the hand that assists his neighbor, and rejoices in the welfare of others as well as his own. The selfishness and short-sightedness displayed by the refusal to assist in the disposal of our neighbors' product is beyond comprehension, for the result is sure to enhance the value of our own. We all know that some of our most successful producers are incapable salesmen, and the depreciation in prices is often due to this very incompetency. That improper distribution has much to do with our existing difficulties is undoubtedly true, for the ratio of honey consumption in the United States is less than one pound to an individual, and nothing but co-operation can correct this.

Co-operation is not a selfish project for it only recognizes the individual in his product, and the product in accordance with the grade, and it is the only method that harmonizes all antogonistic interests.

The feasibility of this plan, as stated, has been fully demonstrated in practice, and we firmly believe that until the bee-keepers of this country band together in the form of local and other associations, the existing state of hopeless expectation will positively continue, and the demoralization of prices will be repeated every successive season.

The formation of local associations results in the concentration of the interests of many, the selection of the best material at hand to supervise the whole, the buyer deals with one instead of many, all grading is equalized as well as prices, and by systematic methods in course of time establish such a reputation that results in a direct demand for their product instead of glutting the markets by improper distribution. Then as "great trees from little acorns grow," so shall we also witness the growth and formation of other kindred associations as the natural development of the local organizations' demand.

The absurdity of beginning at the head instead of the foundation has been fully experienced in the pioneer work of other associations, and while we fully endorse the establishment of a National Exchange, as previously stated we can not expect success to follow such an enterprise until local, district and State associations demand it.

"Hope, tho, never dies," and the inspiration following the birth of "The Infant," at Lincoln, Nebr., a few months ago is reviving the dormant faculties of a great many who had fallen into the slough of despair. With hope renewed all eyes are turned towards this new star of destiny for deliverance from present bondage.

The infant development of this United States Bee-Keepers' Union will depend very much on the atmospheric surroundings, and the generous diet given it in the form of financial support. We feel fully assured of the first in the absolute confidence we have in the faculty who have it in charge; the enlargement and scope of its work depends entirely upon the individual bee-keeper, and it is for us to make it and mould it to suit our varied wants.

As a closing theme, and one bearing on the subject of co-operation, I desire to outline a field of operation for your present or future consideration, and this is the establishment, in connection with the present organization, of a Bee-Keepers' Information Bureau.

The object would be to supply its members with all information at hand in regard to matters bearing on this industry. The establishment of agencies in the various States and centers of business. The agencies to glean information for, to supervise, and disseminate matters of interest to the members from the central office. The following would be some of the benefits accruing to the participating membership:

A rating of individual responsibility; the possibility of securing such information pertaining to members, or of any one dealing in our product; the amount of honey produced in every section of the United States, by the statistics available the centers of over-production and under-production could be readily determined. It would be an effective agency in ferreting out and prosecuting the adulterator, when once this organization has secured national legislation, and we can never expect to suppress this foe to our industry until this is accomplisht.

GEO. W. BRODBECK.

Mr. D. N. Ritchey—It is only by co-operation that we can sell our honey successfully. If one locality has a good crop and another a slim crop, co-operation is needed.

O. L. Hershiser—If we had some committee that could recommend good firms it would be a benefit.

Dr. Miller—The journals are already doing something of the kind. Any one that is not responsible is not allowed to quote.

Mr. Doolittle—If this is to be a corporation to aid in putting up the prices of honey, then it is no better than the old trusts that put up the prices of oil and sugar.

Mr. Abbott—It is not for the purpose of putting up prices, but for the sake of getting better prices by securing better distribution. For instance, there is the fruit exchange. If there is a poor crop in some locality it is known, and the surplus of some other locality is directed there instead of allowing the surplus to accumulate in some trade-center like Chicago.

Mr. P. H. Elwood, of New York, read the following paper on

Marketing Honey.

During the past 25 years great progress has been made in the production of both comb and extracted honey. During the same period no progress has been made in marketing the same. Indeed, it may be truly said that we have suffered a retrograde movement, for while the same system of marketing is in practice now as 25 years ago, it is but poorly adapted to the largely increast production. Then, with a comparatively small production honey would sell itself at good prices as soon as exposed for sale, and the chief concern of the bee-keeper was to secure a crop. Now, his chief concern is to get a remunerative price after he has his crop ready for market.

Prices are too low. With the average bee-keeper prices are below the cost of production. Certain enthusiastic individuals may assail this statement, but it is true, and not difficult to prove.

The average bee-keeper is intelligent, and economical in business and living expenses, and were his profits good he would not forever remain poor, which seems to be his lot.

Again, it may be said that in most parts of our country bee-keepers can count on but one full crop in four years. On this crop there may be a profit. The other three crops, of which one may pay expenses, will more than eat up the profits of the full year. I write this because there is an impression among honey-dealers that there is an immense profit in the bee-business. Indeed, commission men have coolly informed me that the price of honey was too high; that if it was lower they could sell more easily and in larger quantities, and make more money. Commission men cannot be depended upon to maintain prices unless some association of bee-keepers sha l bring delinquents to account for their selling under the market price. This would be very satisfactory to the better class of middlemen.

In June a dealer in his market report in a prominent bee-paper made the statement that the honey crop was immense everywhere, and consequently prices would be very low. This was before any surplus was gathered in the great basswood regions of Vermont, New York, Wisconsin and Minnesota. At the time all that was back of this statement east of the Rocky Mountains was a few days' good work on clover in some of the central States. Our journals should not be open to such reckless fabrications, put forth to injure our business. We must gather our own statistics of the honey crop, and not depend upon others.

We can learn something if we will from the experiences of others. The peach industry of Delaware was nearly destroyed by the growers sending their crops to commission men without proper restrictions and safeguards. The result was that many markets were glutted, and prices went so low that farmers began to tear up their orchards. Now, since an association has been formed for securing an intelligent oversight of the market, the grower is getting some remuneration for his labor.

California bee-keepers—a group of specialists—were among the first to recognize the necessity of securing by united action a controlling voice in the pricing and selling of their products, and they have formed an association for that purpose. They have acted wisely. The weak point in the scheme is that the whole country is not included. Eastern honey, I fear, will be used to break to pieces the association. It is for Eastern bee-keepers to say whether they will establish an intelligent oversight over their markets so that the products of the apiary may be properly distributed, and so that the cost of production, together with the supply and demand, may act as controlling factors in establishing prices.

We are not alone in our trouble. The maximum price of butter in New York city is daily fixt *without discussion*, by a committee of five members of the New York Mercantile Exchange. The same method of establishing the price is in practice in Chicago and Elgin.

What can bee-keepers do for immediate relief to overstockt markets, and for the consequent low prices? Keep more of your honey at home. In other words, cultivate the home market. In the settled parts of the country every bee-keeper can sell his own crop about home, up to a ton or more. There is no need of cutting prices in doing this. Indeed, this is the surest way of destroying your home market. Could bee-keepers be induced to do this there would shortly be a scarcity of honey in our centers of trade.

This Union can be of great benefit in several ways in securing better markets, viz.:

1st. It can in season disseminate reliable information as to the yearly crop. This, with the cost of producing, must be the basis of prices.

2nd. It can appoint a committee of producers and middlemen to meet as soon as reliable information of the crop can be secured, to name prices that should prevail in equity to all concerned. Certain safeguards could be named to assist producers and middlemen in maintaining these prices.

3rd. This would necessitate the appointment of another committee of similar make-up to formulate brief rules for the uniform grading of honey. This committee ought to take at least six months to make its report, and the same to be acted upon at the next session of the Union.

4th. The greatest benefit to the honey market will be obtained by the success of this Union in suppressing the adulteration of liquid honey. I have no doubt but that the consumption of extracted honey would be increast tenfold if adulteration could be stopt. As glucose and its allied product—grape-sugar—are only used for purposes of adulteration, and are injurious to health, I suggest that the Union make a very strong effort to have our legislators classify them with tobacco, beer and whiskey, and impose a very heavy internal revenue tax upon them. Doubling the price of glucose would of itself very much discourage the makers of spurious honey.

5th. Prosecuting and publishing dishonest dealers will help matters very much. We are friends of the honest middleman. He can market our honey better and more cheaply than we, and we cannot dispense with his services. The exact opposite may be said of the dishonest one. This Union should request that in all cases of complaint of insufficient returns, commission men shall permit our Secretary to inspect their books. No honest man will refuse this so long as we keep an honorable man in this office. We should also request that receipt be promptly returned for all goods consigned commission men; also that monthly statements of account be made.

All of which is respectfully submitted, not because of any originality of thought, but with the hope that something in this communication may stimulate thought and provoke discussion.

P. H. ELWOOD.

Mr. Abbott—I don't object to the farmers' honey. My honey gains by comparison with the farmer-honey.

G. W. Bell—I take honey to the editors of local newspapers, and they give me notices that bring lots of custom.

E. A. Sturtevant—My crop is sold by a dealer in Boston, who puts a dozen Chinamen on the streets. He dresses them in white jackets, and they carry the honey in a tray on top of the head.

W. F. Marks—The label plan workt well with our local association for a year or two, and then some of the members became careless and trouble began. In our little association we have a honey-grader, and he grades and puts a label on each package; he puts it on in such a manner that the package cannot be opened without breaking the label.

Wm. Couse—We could never do anything in this line without inspection. Each man would say that his honey was the best. In buying grain the dealers get samples from different parts of the country, and then compare them and decide what the different grades shall be. We would have to do the same thing with honey.

Mr. Manum, of Vermont, not being able to be present, sent this paper:

Profitable Feeding of Bees.

Much has been written upon the subject of feeding bees. And many experiments have been made by bee-keepers with varied success. I am aware that any *one* method will not prove successful with every bee-keeper, since localities vary so greatly, as well as our methods of management. I can, therefore, only speak for myself and my locality, taking my market into consideration. I have no market for extracted honey, hence I work entirely for comb honey.

The subject of "feeding back" extracted honey for the purpose of completing unfinisht sections has often appeared in print. We have been told by some writers that feeding back is unprofitable, while by others we are told that it *can* be made profitable. Here comes in the difference in locations and markets. If one has a good market for extracted honey at a fair price, it would not be profitable to feed back any extracted honey he may secure.

In the 25 years that I have experimented in feeding bees, I have been both successful and unsuccessful in making the feeding back of extracted honey profitable. In these 25 years I have learned something regarding the preparation of colonies to be fed, the kind of feeder best adapted for the purpose, and the preparation of the honey that is to be fed. Until within five years my success in feeding back was somewhat varied, but for the past five years I have made it profitable to feed by extracting from a portion of my unfinisht sections and feeding the honey thus taken to colonies especially prepared for doing the work of completing sections, thus transferring the honey from a portion of the unsalable sections to another like portion, thereby making the latter portion marketable with no expense except my own labor of extracting and feeding. I find that the shrinkage by the transfer of the honey from one set of sections to the other is very slight. The greatest loss is due to the process of extracting, or, in other words, to the adherence of honey to the extractor and other receptacles.

I first prepare the colony by filling the brood-chamber with combs well filled with brood or sealed honey, or both. The unfinisht sections are then placed on the hive, 2, 3 or 4 tiers high, according to the strength of the colony. Directly on these sections I place a larger feeder capable of holding 16 pounds of honey. The honey is first diluted with warm water, and then poured into the feeder just at *night* for the first, and if all works well it will need refilling in the morning. I find for the best results the honey should be a little thicker than it sometimes is when first gathered, for if fed too thin the sections when capt will have a watery appearance; while, on the other hand, if fed too thick, the work will progress slowly, and the cappings will be more or less soiled. Therefore, in my case, when I misjudge the duration of the honey-flow, and unfortunately put on more sections than the bees are able to finish, I find it necessary to do some extra work, such as extracting and feeding back. In this I find it more profitable than to carry over these unfinisht sections, or to sell the honey in the liquid form.

But the most satisfactory and profitable feeding with which I have had experience, is spring and summer feeding—stimulative feeding, so-called—but more especially summer feeding.

Early in the season (I mean the breeding season) the apiarist should see to it that the bees are well provided with stores near the brood. This may be honey or sugar syrup. Our colonies should never want for ample supplies at this season. In order to avoid this, I aim to feed moderately, or enough to keep a supply of uncapt honey in the combs until the bees commence to gather honey. If there is an interval at any time during the honey season between any of the sources from which we get our surplus, as there usually is between fruit-bloom and raspberries, and between raspberries and clover, I feed moderately, that the brood-combs may be kept well filled, that there may be no vacancy in the brood-combs to be filled with the next flow of honey. The object is to keep the brood-combs constantly filled with either brood or honey, so that all the white honey gathered may be stored in the sections. If this practice is kept up judiciously through the honey season, we are sure to catch all the honey in the sections; and later on we can transfer it to our purses in a *greatly* reduced form. A. E. Manum.

Mr. Greiner—I extract the honey from those sections that are less than two-thirds full, and use the honey in feeding back to secure the completion of those that are nearly finisht.

Ten members had tried feeding back. Four would continue the practice.

W. Z. Hutchinson—I have fed back thousands of pounds of extracted honey, and have always found it profitable to feed it for securing the completion of unfinisht sections. It is only under peculiar circumstances that it can be fed at profit when the bees have the comb to build. Black bees are the best for this purpose; hybrids next best; then dark Italians, and golden Italians no good whatever. There is a great difference in individual colonies of the same variety. Some will store the honey rapidly, but are slow at capping, others store it slowly but cap it quickly. Others do good work, make it nice and smooth, while some are very rough in finishing up the work. All of these characteristics are carefully noted and written down upon the hive-cover, and, as the sections are lessened in number and some colonies discarded, those are dropt that do the poorest work. About a quart of hot water is added to 10 pounds of honey. I do not always wait until every section is finisht before taking off the case. If there are one or two in the corners that are unfinisht, the case comes off just the same, and the sections are taken out and sorted, and when there is a case of unfinisht ones it goes back on the hives. Hot weather is needed to succeed at feeding back. It is likely that there are locations where it would not be profitable. In Michigan we have a dearth of honey from the close of basswood, and sometimes from the close of clover until buckwheat, a period of a month or six weeks in which the weather is very hot and no honey is coming in. If rightly managed at this time the feeding back of honey to complete unfinisht sections can be made very profitable. I have secured as many as four pounds of increase in the weight of comb honey from the feeding of five pounds, altho the general average is about two pounds from the feeding of three.

F. Danzenbaker—I put 15 or 20 unfinisht sections at the entrance of a hive at night, and in the morning the combs are empty.

Mr. E. Kretchmer, of Iowa, furnisht the next paper on

The Shipping of Comb Honey.

That man never gets too old to learn, proves true to many of us. Altho I had shipt tons of honey prior to 1893, it was during the Columbian Exposition in Chicago, whilst in charge of the Iowa honey exhibit, that several heretofore unnoticed changes in the packing of comb honey presented themselves, and which during the second installment of honey for that exposition was put to practical test. Prior to the time named, altho we packt the honey with due care, I had no knowledge of the actual condition in which it arrived at its destination.

Altho the first shipment of honey for the Columbian Exposition was packt with great care, many of the cases, when unpacking them at the fair grounds, were not in as good condition as we desired they should be; in some of the cases it appeared as if only a single comb had become detatcht from the section, and in the moving of the crates, this loose comb had fallen against the next comb and knockt it off the section, and the force of the two combined against the next, had broken it out likewise, until the entire row of honey from the glass to the back of the case, was broken down; the leaking honey, altho retained in the case, soakt into the wood of the next sections, and also damaged these.

In the second shipment for the Iowa exhibit we effectually prevented the above-described damages by constructing the shipping-cases wider and deeper: We placed a sheet of manilla paper in the bottom with the edges neatly turned up, forming a shallow pan; within this pan we nailed small triangular strips on which we placed the sections of honey, and between the several rows inserted wood separators, in the same manner as in the supers. Whilst the use of paper pans in the shipping-cases, and strips of wood under the sections is now well known to many, it may be a matter of surprise to them to know that they are not yet in general use, and the writer found it necessary to write numerous letters to fully explain their uses.

Separators in shipping-cases are, I think, not yet very much used, but I find that if separators are used, a comb broken from a section is confined to the space within that section; it cannot break or deface the next adjoining section, whereas, if the separators are not added, the entire row is frequently broken down. Wood separators are cheap, costing less than two cents for a case, whilst their benefit is more than ten-fold. I therefore think that no shipping-case is complete without the separators.

I have been to some expense, both at the World's Fair and while visiting numerous honey markets, to ascertain the most desirable size, form and detailed construction of shipping-cases, and it appears that commission merchants and retail dealers in honey prefer a case holding 24 sections, single-tier high, with glass on one side from 2 to 3 inches wide, with the top boards fitting between the front cleat and the back, so as to hold the top in place while retailing from the case, and so as not to show the joint on the front or glass cleat.

In this paper I will not say where, or to whom to ship, but outline more fully the form of shipping-cases, how to fill them, and how to forward them, and when, and thereby prepare the way for a fruitful discussion.

As already stated, the 24-section case, showing four sections through the glass, seems to be preferred, and therefore we should furnish the size and form desired. In construction the cases should be light, the cleats for holding the glass should be grooved, not rabbeted, and the glass slid into these grooves so that, should the glass break, the grooves will retain the pieces in position. Having placed the paper pan and wood strips in the bottom, select 24 sections of honey, as nearly alike as you can; place four average sections near the glass, top up, that is, in the same position as they were on the hive; if inverted some open cell is liable to leak, and the honey running over the white face of the comb mars the beauty of its appearance. Should there be a little space endwise, make them tight with little wedges at the end; next drop in a wood separator, which should be as wide as the hight of the sections. In this manner fill the case, wedge up the back of the sections so they are tight sidewise, lay on another sheet of paper, which should be large enough to project a little with the edges, then fasten on the top, preferably with small screws.

Goods shipt by express must be speedily loaded and unloaded, and are consequently not handled with the same care as freight shipments, where ample time is usually taken to load and unload; therefore honey shipt by freight arrives usually in better condition than when shipt by express; but express shipments go through in less time than shipments by freight, and if as a matter of speed honey has to be shipt by express, I find that single shipping-cases without being crated or connected with other cases, go by express in better condition, and are handled more carefully, than heavier crates; but shipments by freight or in wagons should have 6 or 8 cases crated together in open crates so as to show the glass and honey through the openings, with a liberal supply of straw under them. The addition to the directions to so load that the edge of the comb should be towards the locomotive, is, I find, never regarded, as the crates are usually so placed to fit the space in the car; but the top of the crate should have in large, plain letters this direction: "THIS SIDE MUST BE UP," which is usually regarded.

In hauling, I advise the use of vehicles with springs; if such cannot be had, a liberal supply of straw under the crates, and slow driving would be desirable.

Do not attempt to ship comb honey great distances in warm weather, nor when the honey is liable to freeze, as it is more liable to break and leak. I well remember how a careless shipment in hot weather nearly ruined the honey market of a city; the honey arrived badly broken and the cases leaking; the dealer, in his eagerness to dispose of it, labeled it: "Comb honey, 8 cents;" the market reports of the local paper next quoted: "Comb honey, 8 cents per pound;" this quotation spread to near-by places, and for months this was the prevailing price. E. Kretchmer.

Mr. Greiner—I find honey less likely to break in shipment in warm than in cold weather, as the combs are less brittle.

Capt. J. E. Hetherington—I pack honey in one end of a car with six inches of hay underneath, and I cover it with a cloth to keep off the dust and cinders. I think that the combs are fastened more securely in the oblong section. We do not put our cases in large crates. We get better results by not crating. The dealers of New York certainly know how to ship honey, and they never crate the cases.

Mr. Ritchie—I bought 500 pounds of honey of a New York dealer, and it came in bad shape. In shipping small lots I find that the large crates are an advantage.

S. A. Niver—It's the trucking with two-wheel trucks that does the mischief. Where four-wheel trucks are used it is all right.

(Continued next week.)

Contributed Articles

Does It Pay to Move Bees to Other Fields in the Storing Season?

BY A. F. BROWN.

On page 611, W. T. Richardson puts this question, and answers it by giving his experience in moving bees to the bean-fields of California.

Having only recently given an article touching on items connected with migratory bee-keeping, I will add something more to the subject by giving here some of the successes, as well as failures, I have encountered in moving bees to catch a honey-flow.

Early in February, 1894, I moved about 40 colonies five or six miles, to the orange-bloom, which was good, and I secured about 80 pounds surplus per colony, as well as doubling my number of colonies. The following June the colonies were packt and shipt some 65 miles to the mangrove on the coast. They were first hauled three miles to the railroad, loaded into a car, and taken 40 miles, then loaded on a boat and taken 12 miles down the river, and set out on the bank; within 24 hours they were bringing in new honey freely. The flow lasted about 40 days. Tho considered a short crop, I secured some 7,000 or 8,000 pounds, and I increast the colonies to 150.

They were packt the last of August, and moved 200 miles down the coast on two boats; in this move two or three colonies were lost by lack of ventilation. The fall bloom proved a failure, still the colonies did well in breeding up, gaining about 33 per cent. increase.

In the February following they were packt again, and all loaded (now numbering about 200) on one large sail-boat to be moved 150 miles to the orange grove on the north end of the Indian river. This proved a disastrous trip. I counted upon three or four days to go the 150 miles (having open water two to four or six miles wide the whole length of the river), but encountered a "northener"—in other words, heavy wind and stormy weather—and were driven ashore, the bees being loaded in the "hold" of the boat. Before we realized it, nearly all perisht from lack of ventilation. There were but about 25 colonies saved out of the lot, and these were reduced in numbers, and all the brood lost, still they built up rapidly, as soon as placed in the orange grove, and with the purchase of some 20 colonies were increast by June 25 to fill all the hives that colonies were lost from.

Mangrove in 1893 gave nothing, but in anticipation of getting a crop from it I packt and moved my colonies about 40 miles north from where they were for oranges. This move was made by railroad, the colonies being hauled ¼ mile to the car, and again when unloaded hauled about half mile to the place where the apiary was located. This was about April 20; on the 3rd or 4th of May I found saw-palmetto blooming very abundantly some seven or eight miles away across the river. As there was comparatively little palmetto in reach of the colonies where they were located for the mangrove, and mangrove would not be opening for six weeks, I promptly packt a number of colonies and moved them on May 5 to the palmetto. In the following three weeks these colonies gathered an average of 60 pounds of surplus honey.

Mangrove, as stated above, proved a failure, and early in August, in driving across the country, some 18 or 20 miles from home, I came across a tract of cabbage palmetto that was blooming very heavy. Stopping at a "settler's" house in the vicinity, I found his bees—a few in old box-hives—were bringing in honey very freely. I drove home that night, and the following day packt a number of colonies and was on the way the following night; in 48 hours I had my whole 200 colonies on the ground, hauling the bees the whole distance (18 miles) by teams. The bloom lasted only 9 or 10 days, and two or three were stormy, still the colonies gathered an average of 40 or 45 pounds each. Then set in a long honey-dearth, and by Sept. 1 breeding had ceast altogether.

September 1 I commenced feeding every colony, and kept it up for three weeks, feeding about $90 worth of feed. I did this to have bees for the fall bloom from wild sunflowers and golden-rods. There being a good deal of prairie country at this location, and the settlers told me it comes up to these flowers every fall, in fact, when I commenced feeding for stimulating my colonies to breeding, I could see the young plants coming up thick all over the prairie.

By Sept. 25 the colonies commenced to gather some honey, and in a few days they were getting from a pound to two pounds of surplus, as shown by scale hive. The yield was cut short by a heavy gale and storm the 9th or 10th of October, and later entirely destroyed by a second gale, but the colonies did very well while they could work, and gathered about 40 pounds per colony from the sunflowers. Stimulative feeding had given six to eight frames solid with brood at the opening of the bloom, and had there been no gale, I think the surplus crop would have been exceptionally good.

In December, the bees were packt and moved about 70 miles; hauled first to the railroad about eight miles, then at the destination hauled out again half a mile to the location for the apiary. This was December, 1893; in the February and March following I secured a fine crop of orange honey, upwards of 10,000 from the 200 colonies, tho all of them were not workt for honey, as some had old queens and were worthless.

Leaving home about March 20 for a trip through the State and to Cuba, I returned about April 25, to find the colonies breeding very lightly, owing to a honey-dearth following the orange-flow. I decided to move at once to the saw-palmetto on the coast, and in three days, or on the 28th, I had the colonies packt and loaded on a car, and took them 60 miles, to New Smyrna. Here they were unloaded onto a "lighter," and a small tug towed us down the river 18 miles, and we unloaded the bees on a small island. In this move we lost about 25 per cent. of the colonies, and nearly all of the brood, having them packt too close with screens that did not leave the full size of the top of the hive open, as always heretofore. Still, notwithstanding this heavy loss, the 170 weak colonies gave me 42,000 pounds of honey from palmetto and mangrove in the following 70 days. A month after the flow ended the colonies were packt with full size screens, and moved back to the railroad, and then 100 miles, or thereabouts, to the interior of the State, and arrived at their destination in good condition, with no loss whatever.

In the above I have given the main moves made during three years, and it will give one an idea whether it paid or not. I have moved other lots of bees, and in a few instances I moved a portion of this apiary short distances, or divided it and put part at one place and part at another. These colonies were in what is known here in the South as the "Dixie" hive, or 8-frame (Langstroth size) hive. Of the crops of honey harvested, about 22,000 pounds was comb honey, and the rest extracted. The colonies run for extracted honey were tiered two and three stories high in good years, and those for comb honey sometimes had three and four supers on a colony at one time.

The expense of the moves run from $60 to $150 each. This included everything, cost of transportation, packing, hauling, etc.—as well as the cost of "screens." I had one man with me all the time, and then hired extra help when necessary.

With my experience it has paid to move bees. Still, it entails a vast amount of risk, and one knows from experience what taking risks means, and what it leads to.

Volusia Co., Fla., Oct. 9.

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Swarming Management—A Friendly Reply.

BY "BEE-STUDENT."

All right, Mr. Poppleton, I am glad you thought it proper to "call me down," on page 690, for it will give me a chance to explain that which I did not think necessary before. None of us has all the "kinks" out of our management so that everything runs smoothly at all times, and we may help each other greatly by reporting any short cuts we may have discovered, and now for my "short cut" in cutting out inferior queen-cells:

At swarming-time I have more hives ready than I ever use since adopting the method of ventilation described in a former article; and when a queen is so prolific as to require more room than a 10-frame Langstroth hive furnishes, I am always ready and anxious to help her find other quarters, and every colony being near and in plain sight, I put on my veil and go to the side of the hive, as soon as she swarms out, take off the cover gently and begin examining the combs, and by the time the swarm has left the hive I have my work half done; and by the time they have clustered, I have finisht and closed the hive, and am ready to take care of the swarm.

Now, if Mr. Poppleton will tell me where to begin counting the 5 or 10 minutes I have *lost* in the operation, I will grant that he is right.

I hinted very strongly, in a previous article, that there was a *best* time to do all our work, and I find that time to be when nothing else is *pressing*, but it is too often the case with most men that there is *always* something pressing, and the queen-cell cutting must be delayed until the swarm is disposed of, or until next day, and altho grandfather managed thus, it is no excuse for you and me, in this progressive age. You may say it is impracticable to disturb the bees while swarming. How do you know it is? Every bee ready to go out with the swarm will go, and not one bee more by being disturbed at that time; and when you begin to take out the frames, the swarming part of the colony will take wing immediately, and they are in reality helpt instead of hindered; as the majority of the old colony are afield, the combs are almost bare, and queen-cells are found at a glance; whereas, when you have to use smoke, the center combs, where you expect to find the best queen-cells, will be so thickly covered with bees that it will require about 15 minutes to make safe work of it.

The greater portion of my queens are clipt in order to facilitate my work should the whole apiary take the "swarming fever," as we know they do some years without any apparent cause for it.

I always have a cage at hand, and while handling the frames, keep an eye on the entrance for the queen, but she often comes out in time for me to cage her before opening the hive.

We often cause ourselves unnecessary work by not doing our work early enough, and here is where I commenced to lighten my labor, and tho not being able to do half of a man's labor, I can do more in the apiary than I could 20 years ago, and am still learning.

I hope the younger readers will take a hint from the above, if the older ones do not; and I would like to add my mite, from time to time, to the many good things we find in the indispensable "Old Relialble."

CORRECTION.—Please allow me to say that on page 594, third sentence should read, "And as only crowded colonies need ventilation, etc.," instead of, "And as only covered colonies, etc." An error of the "typo."

Ventura Co., Calif.

⁂

Advantages and Disadvantages of the Presence of Drones in the Hive.

BY C. P. DADANT.

The following questions appeared in the "Question-Box" some time ago, but requiring more space to reply to them than is there allowed, we give our answer in this article:

1. Do you think the advantages gained from the elimination of drones to be as great as is generally claimed, or are they over-estimated?

2. Are there not in your opinion counter-balancing advantages derivable from their presence in the hive in numbers more approaching to what Nature proportions them, and which we may have possibly overlookt?

3 Given an equal number of colonies, with queens of one age, and all of equal strength, one set with combs of their own building, and hence no restraint as to drone-rearing, and the other set with only worker-combs, and hence incapacitated from rearing drones, what, in your estimation, would be the difference, approximately, in amount of surplus honey harvested?—S. A. D.

ANSWER.—Instead of believing that the advantages gained om the elimination of drones have been over-estimated, we, n the contrary, believe that they are overlookt by the majority of bee-keepers.

The writer of the query thinks that Nature has provided the drones for a certain purpose. Yes, indeed, it has, and the great number of drones in a hive, in natural circumstances, is another evidence of the correctness of the theory of natural selection, or of the "survival of the fittest," as it has aptly been called by the leading men of science, and by Darwin in particular. In a state of nature the bees do not exist in very great numbers in any one place, and when hives are several miles apart, it becomes necessary that a great number of drones be hatcht in each colony, in order that a sufficient number of them be found in the fields to render the queen's bridal flight successful. In other words, there must be enough drones reared in each hive to make it almost an absolute certainty that the queen of this hive, or of any other, for several miles, be sure to find one in the few minutes, or hours, at the most, that she spends in the air. Upon her life, the life of the colony depends, as there are often no other means left for the continuance of reproduction. All bee-keepers of experience know what little chance there is for a colony whose queen is lost in her wedding flight, if young brood is not given it by the attentive owner.

But, under domestication, the conditions are changed; the colonies being congregated together in large numbers, it is quite evident that the drones of one or two hives will serve the same purpose that they would have served if those two hives were the only ones within the bees' range. It is therefore useless to rear such a number of drones, in all the hives.

The querist desires to know what would be, approximately, the difference in amount of surplus honey harvested, if colonies are incapacitated from rearing drones. Before answering that question we would like to enquire what advantage the writer has found in the rearing of drones. They do not work, they eat honey, in the hive, never out on the blossoms, and their rearing decreases the number of workers reared. Are not these facts sufficient to incite the bee-keepers to prevent their production in numbers limited only by natural proficiency? Is it necessary to theorize on the profit, and the approximate amount of honey saved by their suppression? If we had to compute it we would place this amount at a very high figure.

In a square inch of comb about 55 workers may be reared, while the same space will furnish room for only 36 drones, both sides of the comb being taken as a matter of course. Thus in a square foot of comb, where 5,000 drones could be hatcht, you may rear nearly 8,000 workers, in round numbers. It looks reasonable that the same amount of feed will rear either brood, since it occupies same space. And when they have been hatcht, you have a small swarm of workers, instead of a heap of useless, bothersome gormands that do nothing but loaf, but are sure to come home to eat. So if you have allowed your colony to rear them at a great expense you soon become convinced that they are in the way, and that they daily decrease your profits, and you perhaps go to work and provide a drone-trap—a nuisance—to try to get rid of them! Better not rear them at all! If you have taken pains to make sure of a sufficient number in one or two of your best colonies, why go upon some imaginary idea to permit their production in every hive? If you try ever so hard, to get rid of the drone-comb, you will still find more drones than you want when summer comes. But you will do well, and will find it pays, if you, at least, get rid of the biggest patches of drone-combs in all your hives but the breeders, as mentioned before.

What good did any one ever claim the drones do? "They kept the brood warm," some one says. But before they keep the brood warm, *they* have to be first kept warm, and they only hatch in the warm season, when there is but little danger of the brood getting cold, and when night comes, do not all the bees return to the hive and keep it warm? and is it not true that during the time when the drones are plenty, the bees are rather too warm in the hive? Is not this the time when they cluster on the outside, because it is too warm inside? And you want the drones to keep them warm? Better have the drones reared for winter, then!

It seems to us that the advantages from removing the drone-combs and replacing them with worker-combs are sufficiently apparent to make the matter a question of very serious consideration among practical bee-keepers, and unless some better arguments are brought to bear to convince us of our error, we will continue to advise our friends to remove the drone-combs, and do it ourselves, whenever opportunity offers. We are only sorry that we did not do it more carefully in former years.

Hancock Co., Ill.

⁂

Preparing and Marketing Honey.

BY A. C. SANFORD.

In my travels around the State I see the one-pound section universally adopted, and also those nice 12-pound or 24-pound cases; and bee-keepers are learning to grade honey and put it up nicely, but in some places it is yet sent to the grocer in the bee-hive super, gum and all, which ought never to be done, because such doings help to keep prices of honey lower.

Now we will look into the extracted or clear honey trade. How do we find it? Well, the present season being a very poor one for honey here, I lookt for some in the eastern part of the State that might be good enough and in suitable packages for family use. The situation is like this: It is put up in such promiscuous packages that I wouldn't know what to offer my customers. There seems to be a good deal put up in large kegs, holding 50 to 300 pounds. Now I suppose these packages are all right for bakers' and confectioners' use, but will not do for the grocer or for the family trade, because they are much too large, and honey is hard to handle when once hardened (as real good honey is most sure to do when cold weather comes).

I was not able to find extracted honey in small enough packages for retail trade. I saw some very choice honey in small tin cans in Watertown, and the man wanted 8½ cents per pound by the 100 pound lots. I saw another that would have been nice if it had not been badly handled. But why don't folks keep their honey in a dry, warm place instead of in the cellar? And why do they not leave the honey on the bee-hive till it is thick enough to be good?

Now a word about the size of packages for family use. Square tin cans holding 12-pounds are first-class, and will sell well; or if you wish cheaper packages, 15, 20, or 25 pound basswood jelly kits go very well, costing only about ½-cent per pound, or about that to put it up. It will cost about 12 cents to put honey in 12-pound tins. Almost any amount of choice extracted honey could be sold if nicely put up in one or two pound packages.

Now, why cannot bee-keepers put up their extracted honey in nice, uniform shape, as well as the comb. If we all would use some reason in this, as well as in other things, there is no reason why we should not get nearly as much per pound as for honey in the comb. To accomplish this, we must first adopt *right* and businesslike principles. Every person selling extracted honey should have his name and address on every package, and always state the quality. Any one found selling adulterated goods should be severely dealt with. Honey is one of the most wholesome articles there is for food, and the innocent purchaser ought to be protected as well. One thing we should remember, that is, to please the eye as well as the palate.

All the clippings and bits of comb, if saved and rendered nicely, will make nice wax, and will bring a remunerative price. Try it. Pierce Co., Wis.

⁂

Report for 1897—Selling Honey.

BY E. S. MILES.

From 32 colonies, spring count, I increast to 52, and got 1,900 pounds of comb honey and 400 pounds of extracted honey. The 10-frame colonies swarmed just as much as 8-frame ones. I noticed no difference, except the 10-frame hives gave the largest swarms. Best yield from one colony was from a 10-frame hive, 155 pounds of comb honey, and increast one. The next best, 114 pounds from an 8-frame hive whose colony did not swarm. I don't think there is so much difference between the 8-frame and 10-frame hives as one would think from reading the champions of the respective sizes, provided you watch the 8-frame colony carefully. I try to watch, and if the spring is favorable the 8-frame colony may get too much honey in the brood-chamber, thus crowding the queen out, when I take out an outside comb or two, and give empty ones; or they may run short, when I take out an empty one or two, and give full ones.

Now I am going to do what may seem a fool-hardy thing. I am going to disagree with the editor. While I do not agree with Mr. Pease (page 728) altogether, I do agree that Mr. Pease has come nearer the truth than has Editor York in his editorial reply.

My experience of the last two or three years agrees perfectly with Mr. Pease's first subject; that is, that bee-keepers hurt both the sale and price of honey by their glowing reports that they are so apt to make along about swarming-time, when everything looks favorable and the bees are booming. To illustrate, I will tell how it was here this year.

The season opened up favorably; bees wintered well, and along about the middle of June the bees began to gather honey and swarm. Now understand, as Dr. Gallup says, everything lookt favorable—lots of clover, nice weather and ground good and moist. Well, the farmer who has his hands full at that time with tending his corn crop, and has almost forgotten he has a half dozen colonies of bees out in the back yard, concludes that as the bees are swarming so much, perhaps he had better get some "boxes" and put on, the "first cool morning," as now they have swarmed perhaps they will "make" some honey. So he goes to the local supply man, the first time he goes to town, and calls for honey-boxes.

The supply man says "All right," and while wrapping up the sections, asks the farmer how his bees are "doin'."

The farmer says: "First-rate; never saw the like; had 6 in the spring, got 24 now, and lost 3 or 4, and I don't 'spose they are done swarmin' yet."

"The local bee-man" asks if he has any "boxes" on yet? "Oh, no; been terrible busy; such a wet spring, corn planting late, and corn weedy; haint had time to fool with bees; don't think they have 'made' any honey yet any way."

The local man says: "Why, you ought to have boxes enough to put two or three sets on those swarms. Just come out here and see mine. Here is one that came a week ago, working in the second set of boxes, and I'll give it another set in a few days. Here, look in this hive; it swarmed yesterday. Aint that nice honey? It will fill another set or two of boxes yet. I tell you what, that beats 15-cent corn, and you better take plenty boxes along. You'll make a pile off them bees if you 'tend to 'em right."

So the farmer goes on his way rejoicing; puts from 1 to 3 sets of sections on every hive that has bees in it, probably putting the most "boxes" on the old "stands," and few or none on the "new swarms," not expecting them to "make" much honey until they get older. Now every thing is lovely till cold weather, and I know, and am personally acquainted with one man at least, who did not believe that white clover had stopt yielding honey up to Sept. 25, because he saw some in bloom over in his pasture! Such bee-keepers do not *know* how much honey they have until they take it off, when the weather is too cold for the bees to object, but they always *tell* about what a *lot* they have *ready* to take off.

The local supply man, referred to above, and who is no creature of the imagination, paid me a visit about the time the farmer was in after "boxes." He told me one farmer had one colony in the spring, and at that time had had five swarms and was in after more hives as he expected more swarms. Honey had always sold for 15 cents or more here, up to last year, when farmers with poor batches of old, dark combs knockt the price to 12½ cents, and then 10 cents. But by having a nice article, and sticking to it, I retailed most of mine at 15 cents.

The local supply man at the time of his visit said to me: "Honey will be cheap; going to be a big crop; they [the stores] will put it at ten cents at the start."

I replied: "I don't know yet. We are not sure of a big crop yet. If the weather should turn unfavorable just now, we would have very little marketable honey. I don't think I have a case ready to come off yet. As for the price, the stores will get it as cheap as they can so as to sell it quick."

Now about a week or ten days after this, the honey-flow stopt off short. The scale hive which had been showing a gain of 2½ to 4 pounds a day, dropt to 1, and next day nothing, with the clover looking about as good as ever. We were left with lots of unfinisht sections.

About this time we take off some honey, and strike out to peddle it out on our old route of last year. We askt 15 cents for a single section, or 12½ cents per section for 4 or more. All right, no kick made at the first few houses; honey was nice, all satisfactory.

Strike another street. Go to a house that we sold to only occasionally last year. Ask if they would'nt like some honey? Didn't know, how much a pound? Fifteen cents single section, or 12½ per section for four or more. They laugh and say that Mr. ——, the local supply man's boy was around with honey this morning selling it for 10 cents. Didn't buy any, but it lookt nice, might call again, they would see about it, etc.

Now what could we do in such circumstances? Do you say we would have to come down in price? You have guest correctly. We sorted our honey more carefully than ever before, and managed to sell the very best of it at 12½ cents per section, and all the rest goes slow at 10 cents.

Now, is there more sold and used since it has gone down? Our leading grocery men tell me no, there is no better sale, but they must sell it at that, as their customers say they have heard this one or that one is offering it for that. The local man afterwards told me it was too low, and that there was not nearly as much honey as was expected. But the groceries were selling for 10 cents, and it was no use asking more.

Now the price is fixt at 10 cents, clearly the results of glowing reports and too many bee-keepers. No use to say, "Get them to read the bee-papers," as the local man is the man who recommended the American Bee Journal to me, but he has cut down expenses, I understand, and can produce all the 10-cent honey he can sell without the aid of the grand old American Bee Journal. Crawford Co., Iowa.

⁂

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

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United States Bee-Keepers' Union.

Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

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EUGENE SECOR, Forest City, Iowa.

Vol. XXXVII. CHICAGO, ILL., DEC. 16, 1897. No. 50.

Editorial Comments.

Talking Through His (Bee)-Hat.—The Chautauquan is the subject of a hold-up in Gleanings. Strange that ably conducted papers don't know enough, when they want something about bees, to have it written by some one who has a personal acquaintance with them. The stuff in Chautauquan is just *stuff*. Room here for only one instance. Yes, two:

> "A queen-bee from the South......is introduced in one of the modern queen-cages. So closely imitated is the ordinary cell of a queen-bee by this cage that the hive-workers are readily deceived......The bees will instantly pounce upon it and liberate the queen by eating through the sugar paste. Poor, deluded souls! in their innocence they think they have hatcht out a queen."

There's richness for you! And here's something in the way of exact figures:

> "It should be remembered that bees deserve our respect and protection, and that to kill a bee is to waste a pound of honey!!"

◆

Trans-Mississippi Exposition Bee-Notes.—Of course all bee-keepers are interested in the great exposition to be held at Omaha next year, on account of the large apiarian exhibit that is being workt up by Hon. E. Whitcomb, the head of the Bureau of Bee-Industries. He writes us that Nebraska will occupy 500 feet of space in this department. Mr. L. D. Stilson, who is in charge of this exhibit, will fill it very creditably, and has a goodly portion of the material necessary already in warm storage where he will carry it over winter.

Mr. R. F. Holtermann, of the Canadian Bee Journal, is engaged in rustling up a fine honey exhibit from Ontario. The bee-keepers across the line are evincing an energy that may put their Yankee neighbors on their mettle, unless the latter begin to hump themselves.

The Minnesota Bee-Keepers' Supply Manufacturing Company (the name alone will need large room) are taking space at the Exposition, which will be in charge of Mr. Don Westcott, of Nebraska. "Don" is one of the young bee-keepers of the State, and is evincing an energy that must bring success, and which indicates that he may be heard from in the future among bee-keepers.

Several State bee-keepers' associations hold their annual meeting this and next month, and Mr. Whitcomb is hoping to hear from them shortly afterward.

Mr. N. E. France has been doing some work towards a proper representation of Wisconsin's bee-industries at the Trans-Mississippi. Mr. France is in a position to get up a fine exhibit from his State, and he should receive substantial encouragement from the big bee-keepers in that State.

Secretary Chase, of the Iowa Commission, says that he expects to make a very fine exhibit of honey and other bee-products, also bee-keepers' implements and machinery. A superintendent for the Iowa honey exhibit has not yet been appointed, but this appointment will be made sometime during this month.

It is proposed to allow States that put up exhibits in the Bureau of Bee-Industries, to liquefy honey as often as is necessary in order to keep their exhibits looking bright, and to replace their exhibits, or as much thereof as they may desire, with the honey crop of 1898, at any time during the Exposition.

The official bird's-eye view of the Exposition grounds is now being issued, and is giving the general public an idea of what may be expected next summer. Work on all buildings in course of construction is being pusht regardless of the weather, and they will certainly be in readiness for occupancy in time for the opening of the Exposition, June 1. We hope soon to have a picture of the Exposition grounds to show our readers. It will be a big fair, second only to the World's Columbian Exposition in 1893. Better begin to think about going, should all be well with you next summer.

◆

Do Bee-Keepers' Conventions Pay?—This question is discust by G. M. Doolittle in the Canadian Bee Journal. He says if they are for personal quarrels and advertising wares, then they don't pay. But if wholly for discussing practical bee-keeping, each one imparting his mite to the common fund of information, then they pay big. Three points:

First, at a convention "forget all the cares and worry which have prest upon us during the year, and go to the convention like a boy let loose from school, to recuperate our health and life by a free and social intercourse outside of convention hours. By such intercourse we often learn more of value than we do during the hours the convention is in session."

Second, get all information possible, using pencil and note-book, and afterward impart to others.

Third, examine all hives, implements, etc., to see if any or parts of any will help our own work. One item of this kind that he got at one convention paid him all he ever spent in attending conventions. It was the "no-drip" idea of having manilla paper in the bottoms of shipping-cases.

◆

Uniting the Unions.—In the Orange Judd Farmer for Dec. 11, Mr. W. Z. Hutchinson has a brief but very interesting article on uniting the national bee-keepers' organizations, a part of the last paragraph of which reads as follows:

> "The United States Bee-Keepers' Union held its annual convention in Buffalo, N. Y., at the time of the meeting of the G. A. R. encampment. The attendance was the best since the World's Fair convention. At this meeting were present

20 men who were also members of the National Bee-Keepers' Union, and they all exprest themselves in favor of amalgamation. This new Union is only a little over a year old, but it has already done some excellent work in bringing some of the honey-dealers to time."

The United States Bee-Keepers' Union is having new names added to its membership list daily. It has now over 300 members, and we believe that very soon there will be a stampede into its ranks. Poor seasons previous to the past one have workt against building up a large membership in such organizations, but now that there is a better feeling, and better crops, we see no reason why bee-keepers and others who are in favor of pure food—pure honey—should not join the New Union in large numbers.

The same number of the Orange Judd Farmer has on its first page a good reproduction of the photograph of the Lincoln, Nebr., meeting of the North American Bee-Keepers' Association, held in 1896.

A Great Honey-Region.—Speaking of a part of Colorado, R. C. Aikin says in Gleanings:

> "In 1892 the number of colonies of bees in Boulder county was estimated at 18,000, which, yielding 25 pounds, would give 20 carloads. Outside of the towns, I should judge that one-fourth of the homes have from one to ten or more colonies of bees, and that within 75 miles of Denver there are bees enough to produce 50 or more carloads of honey, if they were properly handled."

If this is a fair sample of the density of Colorado's bee-population, it seems to us that it ought to be a good field for securing subscribers to bee-papers. And yet we doubt if 300 bee-keepers in that whole State read any bee-paper regularly.

The Michigan State Convention will be held at the Donevan Hotel in Mt. Pleasant, Dec. 31 and Jan. 1. Of course, all who can possibly attend are invited. The Michigan State Bee-Keepers' Association is one of the oldest bee-organizations in this country, and one of the very best. Its annual gatherings are always exceedingly interesting and profitable, whether there be many or few present. There should be a large attendance at the coming meeting. For further information address the Secretary, W. Z. Hutchinson, Flint, Mich.

Change of Date.—The Seneca Co., N. Y., bee-keepers' convention has changed its date of meeting from Dec. 16 to Wednesday, Dec. 22. A part of the program was given last week. C. B. Howard, Romulus, N. Y., is the Secretary.

The Weekly Budget.

MR. R. C. AIKIN, wife and baby, are pictured in Gleanings for Dec. 1. They form a pretty solid-looking family, as well as a happy-looking one.

☞ HON. EUGENE SECOR—General Manager of the United States Bee-Keepers' Union—is also President of the North-eastern Iowa Horticultural Society, which held its 13th annual meeting at Forest City, Nov. 30 and Dec. 1 and 2.

MR. FRED HOLTKE, of Essex Co., N. J., writing Dec. 7, said:

> "Your American Bee Journal is grand. I cannot see how I could do without it. It is better than ever."

MR. C. C. PARSONS, of Jefferson Co., Ala., writing us Dec. 19, said:

> "Bees have done well here this year. My best colony gave me 196 pounds of comb honey. The American Bee Journal is well worth the price you ask for it."

THE MINNESOTA BEE-KEEPERS' SUPPLY MFG. CO., of Minneapolis, have just sent us a copy of their new catalog. It contains descriptions of about everything needed in a well-outfitted apiary. Their advertisement will be found running regularly in the Bee Journal.

MR. M. H. MENDLESON, of Ventura Co., Calif., writing us Nov. 29, said:

> "I always read the American Bee Journal with interest. Bee-men from here to the Ojai and Matilaja canyon, had a failure in the crop of honey the past season, but their bees have filled up for the winter."

"HONEY AS FOOD"—our 24-page pamphlet does not contain a single advertisement of anybody's goods. But it has a blank space on the front for the use of a rubber stamp by the bee-keeper who is wise enough to distribute them for the purpose of creating sales of honey. We mail a sample free, and after that the cost is: 25 for 30 cents; 50 for 50 cents; or 100 for 85 cents. Prices on large quantities given on application.

RENEWING SUBSCRIPTIONS.—This month is usually the greatest of the twelve for renewing subscriptions to the periodicals taken during the year. Many publishers offer premiums for advance renewals, such offers expiring Jan. 1. If you have received any such don't forget to take advantage of them *this month*—don't wait until January, and then claim a premium. They are offered usually for a specified length of time, and any one failing to comply with the conditions, must not complain if they get no premium for renewing. These suggestions apply to any and all offers in the line indicated.

EDITOR R. B. LEAHY, of the Progressive Bee-Keeper, describes in the December issue a trip he took last July, visiting Messrs. J. W. Rouse and Jno. Nebel & Son, of Missouri, E. T. Flanagan, of Illinois, and Chas. F. Muth, of Ohio. He says that Mr. Flanagan now has over 600 colonies, but aspires to be the manager of 1,000; and that Mr. Muth, some years ago, when the national bee-keepers' convention was held in his city, "ordered free lemonade prepared for all present, and kept a barrel of it standing in the room below the hall during the convention," at a cost to himself of about $40. That was generosity for you. The lemonade-cup is far ahead of the German wine-cup mentioned last week. You can count us in on the lemonade, every time.

MR. J. MESSINGER, of Elroy, Juneau Co., Wis., has been offering his home and apiary for sale (see page 798). If you want a bargain, write to him. His report for 1897 is as follows:

> "My bees went into winter quarters in fine condition. I got more than an average crop, considering there was no honey gathered from basswood in this section, and but very little from buckwheat, as we had a cold, wet August, but they made up largely in September, as we had fine, warm weather. I had 76 colonies, spring count, increast to 100, and my honey crop was 7,800 pounds of fine quality, a little over one-half being white clover. I have made bee-business a study for years, and with the help of the 'Old Reliable' I have made it a success. There is a good prospect for 1898, as white clover was fine when winter set in."

EDITOR HUTCHINSON, of the Bee-Keepers' Review, has the following very complimentary paragraph in his November number, for which we make our politest bow:

> "An editor will notice editorial work on a journal similar to his own quicker than will any one else; and in this connection I wish to say that I believe no bee-journal shows more careful, conscientious, editorial work than does the American Bee Journal. By this I do not mean that it contains a large amount of editorial matter, because it does not, but there is an undefinable something about a paper that tells to the practiced eye when things have been 'lickt into shape,' or whether they have been thrown together after the 'slap dab' style.... I doubt if the Bee Journal was ever of much more practical value than at present. Speaking of work, I believe that Bro. York does not have a large force, yet he gets out a weekly, and I know that he must have to put in hours of work with which we monthly fellows have no acquaintance."

☞ See "Bee-Keeper's Guide" offer on page 685.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Preparing Bees for Safe Cellar-Wintering.

How can I prepare my bees so they will pull through the winter? I have 16 colonies in fairly good condition so far. They occupy the common Langstroth 8-frame hives, are packt in winter-cases with chaff, the bottom-board under, the full entrance open, passage-way free secured, and the top cover sealed on. They are already put into a dry ventilated cellar, where I think I can keep the temperature from 40° to 50° Fahr. Do you think it advisable to keep the cover on, or shall I break it loose and put cushions on top, under the cover of the winter-case? Is there ventilation enough from the entrance? The "A B C of Bee Culture" advises leaving the bottom-board off to give under ventilation, and keep the cover sealed air-tight in the cellar. MINNESOTA, Nov. 22.

ANSWER.—Probably it doesn't make a great deal of difference whether the covers are on tight or not. If the hives are open enough below, perhaps it is better to have the covers sealed just as the bees left them. Just as you have them now, the probability is that the ventilation is hardly free enough. You can make it all right by raising the cover enough to lay a tenpenny nail under it. I should prefer, however, to leave the covers as they are, and to give more air below. I'm taking it for granted that the entrances of the hives are only about half an inch deep. Two inches will be much better. Perhaps it will not be convenient for you to make so deep an entrance, but you can probably raise the hives enough to put blocks under the four corners. An inch block under each corner will be good, or it may be still better to put 1½ inch blocks under the two front corners, and not raise the hive at all at the back end.

Late Drones—Late Swarm Getting Weak.

1. One colony of my bees seems to have a large amount of drones. We have some warm days that the bees fly quite strong, and the other hives have no drones flying, but this one has a large per cent. of drones. Is this not uncommon?

2. I had one swarm issue Sept. 1, and they filled their hive in good shape. It was an uncommonly large swarm, but seems to be getting weaker all the time. If they had no queen would they have gone to work and done so well? And would they not all have been dead before now? NEBR.

ANSWERS.—1. Yes, it is uncommon to find many drones left in a colony so late in the season. In such a case there is always room for suspicion that the colony is queenless, but bees are freaky, and it sometimes happens that a strong colony may save its drones even when it has a good queen.

2. It is not likely they were queenless at time of hiving, for in that case they would hardly have staid and done such good work. Something may have happened to the queen, however, after the bees had been at work some little time, or she may have failed from old age. It is quite likely, however, that the queen is there all right. If the swarm was a strong one, a goodly portion of the bees were pretty old and would die off rapidly. No young bees would come to take their places till the latter part of September, and as the swarm was a big one it is likely that the queen was laying 2,000 eggs a day in July. That means that 2,000 bees would be dying daily in September, enough to make a good-sized swarm in the three weeks before any young bees could emerge.

Best Management for Most Honey.

How can I best manage my bees to get the best results in comb and extracted honey? They are in 8-frame dovetailed hives. The main honey-flow here is from sweet clover, commencing about July 10th or 15th. There is enough honey coming in before that time to keep them building up, and a little surplus. They begin to swarm about the first of May. I do not care for the increase, but would like to have them at their best just when the harvest is commencing. Would not a 10-frame hive be better, using both stories so as to give the queen plenty of room? WASHINGTON.

ANSWER.—It's a hard matter to say just what is best. If your bees swarm as early as May 1, and your chief harvest does not come till July 10 or 15, there may be a possibility that you will be better off to have them swarm. From May 1 to July 10 is just ten weeks. In that ten weeks wouldn't the old colony have plenty of time to build up as strong as ever, thus giving you two colonies instead of one for the harvest? Undoubtedly, however, May 1 is only the beginning of swarming, and not many colonies swarm thus early, the swarms being strung out all along the following ten weeks. For most of these it would be an advantage if the whole force could be held together. Much will be accomplisht by giving the queen plenty of room, as you have already intimated in your suggestion to give the bees two stories of 10 frames each. Why not give them two stories of 8 frames each, so long as you already have 8-frame hives? Possibly 10-frame hives would be better. Give abundance of ventilation. Raise the lower story an inch above the bottom-board by putting a block an inch thick under each one of the four corners. If the hives are close-fitting, don't set the second story square on the first, but move it forward until there shall be a space at the back end of half an inch. That will allow a passage of air directly through the lower story, and will be very agreeable to the bees during hot days. Early in the season the colony will perhaps be better in the upper story, as they will be warmer there, but as it becomes strong if it does not begin to occupy the combs in the lower story you may insist upon it by moving some of them down. Managed in this way you will probably be able to hold most of your forces together till the time of harvest. But it may be worth while to do what you can to crowd some of the strongest into swarming the first of May, and see how they compare with the others.

Queen's Bridal Trip—Honey to produce a Pound of Bees, Etc.

1. Can a queen on her bridal trip fail to meet drones? If so, will she return to the hive? or what will she do? Will she take any more trips?

2. What causes bee-paralysis?

3. Since it takes from 13 to 20 pounds of honey to produce one pound of wax, how much (honey) will it take to produce one pound of bees?

4. Is honey ready-made in flowers and gathered by bees, or is it a substance obtained therefrom, and manufactured into honey by the bees? JAMAICA.

ANSWERS.—1. It frequently happens that a queen makes more than one trip to be fertilized, if indeed it is not the general rule. If unsuccessful, the trip will be repeated.

2. The cause of paralysis is said to be a bacillus called by Cheshire "bacillus Gaytoni," because Miss Gayton first called attention to it.

3. I am not sure whether the cost in honey of a pound of bees has ever been definitely settled. I have seen some estimates in that direction, but do not know now where to refer to them. If any one has reliable information as to how much honey a pound of bees costs, I'll gladly yield the floor.

4. Some say bees gather honey, some say bees make honey. All probably agree that they gather nectar, a very watery sweet, containing more cane-sugar than the finisht product, and the assertion that bees produce changes in the nectar that might fall under the line of manufacturing would hardly be assailed so bitterly or so generally to-day as it would have been a few years earlier.

Colony Moving Upstairs—Comb Honey Production and Wintering—Honey-Vinegar.

1. Near the beginning of October I gave three colonies of bees each a hive of combs that had been extracted, to clean up, placing the hives of empty combs on top. A few days after, on attempting to remove the hives of empty combs I found that two or three colonies were clustered compactly on the empty combs; their hives of honey underneath being absolutely deserted. Is not this unusual? and will it be safe to leave them like that during the winter?

2. I have understood that in producing comb honey you use two 8-frame hives tiered up. Is this true? and if so, do

you reduce to one hive for the winter, or do you winter the two as one hive?

3. In making honey-vinegar in an open crock should the scum, etc., that rises to the top, be skimmed off? PENN.

ANSWERS.—1. Altho not the usual thing, it may happen in a good many cases. At that time some colonies, at least, are without brood, and if there is free communication it would be nothing strange for the whole family to move their quarters.

2. I like a second story placed under in the spring and left till time to put on supers. When supers are taken off, the second story below is useful to prevent the possibility of having the queen crowded out. When all gathering is over, then the lower story is taken away so as to be lighter for moving, and to take up less room in cellar. If I wintered my bees outdoors (as I have done experimentally in a few cases) I should hold to the two stories all the year round except when supers were on. In a few cases I have tried leaving the two stories all the time even when supers were on, but it has not proved satisfactory. Possibly it might if I knew better how to manage.

3. I don't know of any harm the scum will do until the vinegar comes to be used, when of course it must be removed.

BEEDOM BOILED DOWN.

Prospect for Next Crop.—Fears are exprest in Gleanings that the drouth that prevailed so generally may have killed outright a good deal of the white clover.

Effect of Frequent Extracting.—A writer in Centralblatt says that frequent extracting excites to greater diligence in storing. Perhaps this statement should have its place in connection with the McIntyre-Canadian-Bee-Journal-American-Bee-Keeper controversy.

Yellow-Box Honey from Australia has been sampled by the Southland Queen, which says, "We consider it A1, and good enough for the king's table." Australians feel aggrieved that Londoners will not admit that it is good enough for the queen's table, nor indeed for any table.

Do Bees Creep into the Cells in Winter?—Dzierzon says they do. Rauschenfels, supported by Lehzen, the able editor of Centralblatt, says his bees remain in the spaces between the combs, constantly exchanging places, and when a bee is found in a cell, except as it goes there for food or because disturbed, such bee is dead, stone-dead.

Getting Unfinisht Sections Cleaned.—Chalon Fowls gives his method in Gleanings. At the time of taking off supers a bee-escape is left on a colony short of stores. When ready to have unfinisht sections cleaned up, the escape is taken out of the board, and the hole plugged up with a block having a small hole in it. Then supers of sections to be cleaned are piled on, and the bees do the rest.

Finding Queens is uphill business for beginners. For their encouragement, the Southland Queen tells of an inexperienced hand, one of three who lookt through 168 colonies, and he didn't find a queen. "At times we would point to the queen and the man could not see her. At one time we had him touch the queen with his pencil before he could see her, and this, too, after he had been shown nearly a hundred queens."

Separators in Shipping-Cases.—Mention is made in Gleanings of the use of separators or pieces of thin veneer between the rows of sections in shipping-cases. A number of the York Staters use thin veneering stuff, and E. Kretchmer advocates separators, in the Canadian Bee Journal, so that if a section of honey falls down it will not break down its neighbor. Something of the kind is said to be a necessity with no-bee-way sections, in which the comb comes almost flush with the outer edge of the section.

Bees in Winter.—W. Albrecht, in Centralblatt, compares the winter rest of the bees to that of the badger, which does not remain entirely motionless throughout the winter, but turns over in its sleep from time to time. So in severe cold the cluster of bees is constantly changing, the outer bees working toward the center to get warm; 50° Fahrenheit is the minimum temperature for the outer bees. If, through lack of food or through disease, the temperature sinks below this point, then death ensues through freezing, gradually extending to the center. The greater the cold the more fuel must be used to keep up the heat, that is, the more must be eaten, in order to keep up the temperature of the periphery to 50°. So it may happen that in the midst of the severest winter brood may be reared, requiring a temperature of from 86° to 95°.

Prevention of Virgin Swarms.—In Hanover, Germany, it is a common thing for a prime swarm to send out a swarm itself in about four weeks. To prevent this, and the consequent reduction of surplus resulting from it, the bee-keeper has prepared in advance a number of nuclei with a young queen and a handful of bees each, and these nuclei swap hives with the prime swarms. That is, all the bees are brusht out of each hive, and the nucleus receives the full combs and brood in return for its meagerly supplied hive.

Dry Lumber for Hives.—M. A. Gill says that for very dry climates such as Colorado, lumber should be kiln-dried to the "last extremity" before being used for hives. He had a lot of supers with a 5/16 space over the sections, but the shrinkage of the lumber in the supers reduced the space to such an extent that when the cover was forcibly taken off a considerable number of the sections were ruined by being pulled apart. The bees had glued them fast to the cover. Dry lumber and exact spaces are two things that can hardly be separated.—Gleanings.

Hanover Bee-Keepers.—Herr Lehzen, editor of Centralblatt, gives an interesting account of the bee-keepers in the province of Hanover, Germany. They form a sort of guild by themselves. To become an Imker (bee-keeper) a young man serves an apprenticeship of two years to a professional, that is, to one who has himself past through an apprenticeship, and he is then ready to secure a position with a farmer to take care of his bees. The Imker neither reads bee-journals nor writes for them, but he has his trade well learned, is keen, alert, and a successful practitioner. His rule is: Keep only strong colonies, for few but strong colonies bring greater results than many weak colonies.

A Worker-Bee's Temperature.—The Germans are noted for painstaking research, and some of them have been trying to find out what is the temperature of a worker-bee. One man masht a clump of bees and then applied the thermometer. Dzierzon, in an address at the Wiesbaden convention, declared that it was a fruitless task to try to determine the temperature of a worker, as it has no temperature whatever. A colony or cluster has a temperature, but not a separate bee. The bee takes the temperature of the surrounding atmosphere, and on flying away from its companions must hasten back if the thermometer be not above 45° or 50°. It must at least be admitted that a separate bee has little ability to keep a temperature higher than the surrounding atmosphere.

A Portable House-Apiary.—Editor Root describes a house-apiary of Miles Morton, of New York, that is put together in sections, each section adding to the length of the building, the sections formed of panels that can be taken apart and the whole moved at any time from one location to another. A peculiarity of the building—entirely independent of its portable character—is the way in which the walls are built. The upper part of the building is wider than the lower. The lower part rises perpendicularly to the proper height for the second tier of hives, then a jog in the wall allows the hives to rest fairly balanced on the siding. This answers a double purpose—the hives have a strong support, and the lower hives are in the right place to stand on while working at the upper.

Late-Reared Queens.—Mr. Doolittle says in Gleanings that in his experience half the unfertilized queens he winters over never lay at all. This agrees with one of the propositions laid down by Dzierzon about 40 years ago, that *if* an unfertilized queen laid she could produce only drones. But Doolittle considers an unfertilized queen, whether barren or a drone-layer, of some value in a strong colony through the winter—that is, the colony is better off with such a queen than with none at all, for the bees will remain more quiet and winter better if they have something they recognize as a queen. Then the colony can be saved by introducing a queen from the South in the spring. It would, however, be better to get this queen from the South in the preceding fall, then she would commence laying in February or March, making the colony stronger for the harvest.

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General Items.

Not a Good Season.

The past was not a good season, as the white clover did not secrete any nectar. We have in winter quarters 45 colonies in good condition.

We enjoy the Bee Journal very much, and would not like to be without it.

M. C. BINGHAM.

Coos Co., Wash., Nov. 22.

Wintering Away Up North.

I am wintering a colony in Muskoka, where the temperature varies so much. I fear I have packt them so well that they will be smothered for want of air; but just how to give them air enough and keep out the frost, too, is the difficulty.

THOMAS HENDRY.

Muskoka, Ont., Canada, Nov. 26.

A Reply.

On page 459, Geo. W. Prater, of Pierce Co., Wash., has, for one reason or another, tried to throw ink over part of my writing on page 398. To such rude actions I will only say, like Mr. York did on a certain occasion, but to another person, that if Mr. P. thinks he can stand it, I think I can.

T. H. WAALE.

Clarke Co., Wash., Nov. 29.

Best White Clover Flow in Years.

Bees did well in the forepart of the season. The honey-flow from white clover was the best for years. Basswood yielded only a small crop. There was no fall honey this year, as it has been too dry since July. I have extracted 1,000 pounds from 14 colonies.

A. F. KRUEOER.

Washington Co., Wis., Nov. 26.

Fine Season for Bee-Keepers.

Bees did splendidly the past season. It was a fine one here for bee-keepers. I got 2,680 pounds of comb and extracted honey from 29 colonies, spring count, and increast to 51, returning 10 swarms. I commenced bee-keeping in 1893, and have not lost a colony in wintering, or a swarm in swarming-time. I credit my success to the bee-papers, of which I take three.

J. W. PAYNE.

Vermillion Co., Ill., Nov. 26.

Bee-Keeping in Indian Territory.

My apiary is located on the beautiful Grand river, near the Cherokee Orphan Asylum. I commenced the season of 1897 with 10 colonies, and I now have 37 in 8-frame hives. I clip all my queens, and would not think of doing otherwise. Hiving swarms by that process is a pleasure. I use the Monette clipping device, and would not do without it for five dollars a year. It is not only useful in clipping, but is equally useful in catching the queen when swarming.

I have not had a swarm desert a hive this season. There is a right and a wrong way to proceed in this, as in other things. You want to shade the swarm and give plenty of ventilation. I always give a frame of eggs and unsealed brood if possible.

I ventilate my hives during hot weather by raising the fronts one inch, and let the back rest on the bottom-board. That does not bother the bees so much as to raise all the hive, and it gives plenty of ventilation.

I wire all frames, and if I do not wish to use full sheets of foundation I set the hives perfectly level from side to side; the bees will build perfectly straight combs over the wires as nicely as can be, and if managed rightly very little drone-comb will be built. Put on a super and give but part of the

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frames with starters. If the bees get ahead of the queen, then they will begin to build drone-comb. Use an excluder, or the queen may lay in the sections.

In introducing queens and uniting I use tobacco smoke, and I find it very successful. I powder up some tobacco and put it into the smoker; give the bees a few puffs, and let the queen run in at the entrance. This should be done near dark, or you are liable to start robbing.

Bees should never be molested when honey is not coming in during the day; always wait till sundown, or after. Now if you are a beginner heed this. I had read warning after warning on this very subject, but I had workt during honey-flows, and everything moved along smoothly, but the honey ceast, and one day I went out to look for a queen that I had decided to supersede. I opened the hive, took out the frames, and workt leisurely. The consesequence was I lost that colony in spite of all I could do. I used hay wet down, closed the entrance, and finally tackt wire-cloth so that no bees could get in or out. Oh, my! I never saw bees so wild in my life.

J. T. HAIRSTON.

Cherokee Nation, Ind. Ter.

Bees Did Pretty Well.

My bees did pretty well the past summer. From 10 colonies, spring count, I had 685 pounds of comb honey, in well-filled sections, and had no swarms. I had 100 pounds of extracted honey. I packt 14 colonies on the summer stands in sawdust and shavings. I want to buy 16 colonies more in the spring, so as to start in the spring with 30 colonies.

I like the American Bee Journal very well.

JOHN EENIGENBERG.

Cook Co., Ill., Dec. 3.

A Beginner's Report.

With much interest I read the reports of the bee-keepers throughout the land. As I am a beginner in bee-keeping I will have a short report.

Our summer flow from white clover was excellent, but our fall flow was short on account of dry weather. I started with 2 colonies last spring, and increast to 5, including 1 nucleus, and secured about 120 pounds of comb honey. I bought 3 more colonies. A few days ago I built a shed for them, and packt them in, side by side, with clover chaff on the back, underneath and in between, and some on top, with the front clear, but boarded it entirely shut, and put galvanized iron shields at the entrance of each hive to guard against mice.

I have learned a great deal about bees the past summer, and know but little yet.

H. W. HECHLER.

Keokuk Co., Iowa, Nov. 25.

Report for 1897, Etc.

I began this year with 20 colonies, lost one early from the effects of a laying worker; another colony was weak, but built up during the summer to give me a few pounds of surplus; virtually leaving but 18 colonies for business, and from them I obtained 8 prime swarms, 3 second swarms, and 1 third swarm, all doing quite well; the last-named swarm were supplied with two full frames of honey in September; these all came off in June.

The white clover flow was good in June and until July 7, then very little more until the fall flowers came, and that was light. I took off 1,000 pounds of honey, about three-fourths of it being extracted. Not nearly all is sold yet. Comb honey sells for 12½ cents, extracted for 10 cents; receptacles reserved in all cases. Several persons sent in their vessels and had them filled.

I have now 29 colonies in winter quarters, some in sheds packt with straw, and others with outside boxes packt with straw between the hive and box.

The American Bee Journal is just the thing for any one who keeps any bees, even one, two or three colonies. Every one who

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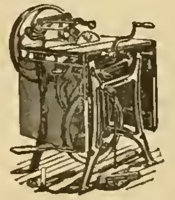
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Working Wax into Foundation for CASH **A Specialty,**

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My Foundation will SPEAK FOR ITSELF, and prices are O. K. So do not fail to write for a Catalog with prices and samples.

Beeswax taken in Exchange for Foundation or any other Supplies.

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Providing 2c for postage is inclosed.

Tells all about my new hive, and system of management, particularly how to produce comb honey that will bring from 2 to 4c more than honey produced in the old way. Address

F. Danzenbaker, Washington, D. C.

Please mention Bee Journal when writing.

Bee-Keepers' Photograph.—We have now on hand a limited number of excellent photographs of prominent bee-keepers—a number of pictures on one card. The likeness of 49 of them are shown on one of the photographs, and 121 on the other. We will send them, postpaid, for 30 cts. a card, mailing from the 121 kind first; then after they are all gone, we will send the 49 kind. So those who order first will get the most "faces" for their money. Send orders to the Bee Journal office.

likes to work with bees ought not to be without it.

Perhaps I will be pardoned for speaking here of the success of prohibition in this county, and also in the State. It is away ahead of its former record all over the State, for which I am glad, and I think most bee-keepers will be glad, for I believe they are, as a rule, temperance men and women, for we surely could not make much use of strong drink and be successful in the bee-business.

GEO. McCULLOUGH.

Page Co., Iowa, Dec. 2.

◆

A Beginner's Experience.

I find after taking the American Bee Journal on a trial subscription that it is on my list of "must haves" for the coming year. There are so many helpful things in it, that are necessary to the bee-keeper's success, that no one should be without it if intending to keep bees.

The bee-business has not been a success in this section, owing to unfavorable weather. There was a great deal of fruit-bloom, but the bees could not get at it because of the cold, rainy weather; and there was no basswood bloom this year, but when clover came on there was a rush of honey for about 10 days, when another wet spell of three weeks ended it.

Probably many will be discouraged in consequence, and go out of the business, but I am in it to stay (D. V.), and have no reason to complain, because I got swarms to make up for loss of honey.

I started in 1895 with one colony, and now I have 14 good colonies, all tuckt away in good condition for winter; and I had something over 100 pounds of good honey.

I have learned many things the past summer, and made a close acquaintance with my bees, and I think we have a mutual attachment for each other.

I am surprised to see how much intelligence bees show, and I have learned the different notes, so that I can tell how things are going in my little apiary by sounds that reach me from time to time; and that is a great help many times in preventing mischief among them.

MRS. C. A. BALL.

Oneida Co., N. Y., Nov. 22.

◆

A Massachusetts Report.

In this dry country bees do not seem to do very well. Some of my colonies gathered no surplus this year, and others stored 25 or 28 pounds. As one colony lookt about the same as another, it's queer to me that one didn't do as well as another. I think I am up to the game. When these bees were transferred from box to frame hives, some of the queens were accidentally killed, and these are the very colonies that gave some surplus.

I have one colony in particular in a Cotton hive (or they called it his, but I don't) that hung out all summer, and did nothing; they will go into a dovetailed hive next spring and have a new queen.

Last spring was cold and rainy, and bees did nothing until late, when they put in some nice white honey, which I had no trouble in disposing of at 25 cents, and could have sold lots of it if I had had it. I think that bees will pay in this dry, sandy land. What we lack in quantity we make up in price.

I am thinking of sowing sweet clover. I tried some on a sidehill, and it grew 5 feet high, and the bees workt on it well.

My bees are hybrids, and I keep them in 8-frame dovetailed hives. I will use a dovetailed hive without the bottom-board, and it will go into a Bristol outside case, and then I will have the best hive out, only it costs. The old Bay State hive is the best I ever saw, with the exception of the surplus part; but the brood-chamber "takes the cake"—easy to handle, warm, etc.

I hope to have better success next year with the bees.

H. A. FISH.

Plymouth Co., Mass., Nov. 15.

Christmas and New Year's at Home.

In order that the public may have an opportunity of spending Christmas and New Year's at home, the Nickel Plate road will sell tickets to any point on their line at a fare and one-third for the round trip, tickets to be on sale Dec. 24th, 25th, 31st, and Jan. 1st, 1898. Good returning up to and including Jan. 4th.

Students by presenting the proper credentials can obtain tickets at same rate, good to return until Jan. 11th, 1898.

For full information call on or address J. Y. CALAHAN, Gen'l. Agent, 111 Adams St., Chicago, Ill.

36 H. THORNE, C. P. & T. A.

◆

Michigan.—The Michigan Bee-Keeper's Association will hold its annual convention Dec. 31 and Jan. 1, in the parlors of the Donevan House, in Mt Pleasant, Mich. Reduced rates at the hotel, and probably on the railroads. A cordial invitation extended to all.

Flint, Mich. W. Z. HUTCHINSON, Sec.

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We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

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Crimson Clover.......	.55	.90	2.00	3.50

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Your orders are solicited.

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Known as "Pleasant Grove Apiary," within ¼ mile of town. Fine 10-room house, bank barn, and all out-buildings. Good orchard, and many varieties of small fruit. In the basswood belt. 3 1-2 acres in homestead, more adjoining if wanted. Good reasons for selling. Write if you want a bargain. 100 colonies of bees for sale with the place.

J. MESSINGER.
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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Nov. 8.—Fancy white 11 to 12c. No. 1, 10c.; fancy amber, 8 to 9c.; No. 1, 7.; fancy dark, 7 to 8c.; No 1 and mixed, 7c. Extracted, white, 5 to 6c.; amber, 4½ to 5c.; dark, 3½ to 4c. Beeswax, 26 to 27c.

All of these grades vary in quality and style of package, which makes it difficult to tell just what a certain colored honey will bring without knowing flavor and body thereof. Sales are of small amounts, and supply abundant. Beeswax is wanted at price quoted.

San Francisco, Calif., Oct. 27.—White comb, 1-lbs...7½ to 9½c; amber, 4 to 6c. Extracted, white, 4¼ to 4¾c.; light amber, 3½ to 3¾c.; dark tule, 1¾ to 2¼c. Beeswax, fair to choice, 22 to 24c.

There is a tolerably firm market for choice to select water white, both comb and extracted, with not much of the same offering. In a small way on local account higher rates than are quotable are realized. Dark grades fail to receive any special attention, despite the fact that such are obtainable at low figures. There is no lack of demand for beeswax, and not much offering. At the same time, wholesale buyers refuse to operate at any advance on previous rates.

Philadelphia, Pa., Nov. 13.—Fancy white, 13 to 14c.; No 1. 12c.; fancy amber, 10c.; No. 1. 9c.; No. 1 dark, 8c. Extracted, white, 5 to 5½c.; amber, 5c.; dark, 4 to 4½c. Beeswax, 27c.

Honey is arriving very freely; market is a little off. Beeswax is in good demand.

Buffalo, N. Y., Nov. 19.—Trade is more quiet, and only the fanciest is moving satisfactorily at 10 to 11c.; other grades require pushing and cutting to move much, at from 9 to 6c., as to actual grade. Supplies are not large. Fancy can be easily placed. Extracted moves fairly well at 6 1-2 to 4c., as to color, etc.

Albany, N. Y., Nov. 8.—Fancy white, 13c.; No. 1, 12 to 12½c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c; fancy dark, 8 to 8½c.; No. 1. 7½ to 8c. Extracted, white, 5 to 6c.; amber, 4½ to 5c.; dark, 4 to 4½c.

Our honey market is active and stock moving off rapidly at quotations. Fancy white comb is scarce.

St. Louis, Mo., Nov. 8.—Fancy white, 11 to 12c.; amber, 9 to 10c.; dark, 7 to 8c. Extracted, white, 5¼ to 6c.; light amber, 4½ to 5c.; amber, 4 to 4½c. Beeswax, prime, 24 to 24½c.

Demand is rather light for this season of the year.

Boston, Mass., Nov 8.—Fancy white, in cartons, 13c.; No. 1, 11 to 12c.; fancy amber, 10c. Ex-tracted, white, 6 to 7c.; amber, 5 to 5½c. Beeswax, 28c.

No. 1 and fancy honey has sold well during the past 10 days, but off grades and light weight is going slowly. Beeswax is in good demand and but little here.

Kansas City, Mo., Nov. 8.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.; fancy amber, 10c. No. 1 9 to 10c.; fancy dark, 9c.; No. 1, 8. Extracted, white, 5½ to 6c.; amber, 5 to 5½c.; dark, 4 to 4½c. Beeswax, 22 to 25c.

Receipts of comb honey are large; extracted is light.

Minneapolis, Minn., Nov. 8.—Fancy white, 10½ to 12c.; No 1, 9 to 10c.; fancy amber, 9 to 10c.; No. 1, 9c. Extracted, white, 5 to 6c.; amber, 4 to 5c.

Demand is good, prices are firm, and supply only moderate—best time so far this season to ship.

New York, N. Y., Nov. 8.—Fancy white, 12c.; No. 1, 10 to 11c.; fancy amber, 0 to 9½c.; No. 1, 9c.; fancy dark, 8½c.; No. 1, 8c. Extracted, white, 5 to 5½c.; amber, 4½ to 5c.; dark, 4c. Beeswax, 26 to 27c.

Our market does not show much activity and comb honey is moving off rather slowly. The receipts are large and the stock is accumulating. While choice grades of white are likely to find sale at present quotations, prices on off grades and buckwheat will have to be shaded in round lots. Southern in barrels is in good demand at 50c. a gallon, for average grade.

Detroit, Mich., Nov. 9.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c.; fancy dark, 7 to 8c. Extracted, white, 5 to 6c.; amber, 4 to 5c. Beeswax, 25 to 26c.

Cleveland, Ohio, Nov. 9.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c.; fancy dark, 7 to 8c. Extracted, white, 6½c.; amber, 5½ to 6c. Beeswax, 28c.

Milwaukee, Wis., Nov. 8.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c. Extracted, white, 5½ to 6c.; amber, 4½ to 5½c.; dark, 4 to 4½c. Beeswax, 25 to 27c.

The market is in good condition. Receipts are liberal, demand fair, and values fairly sustained on finest grades of honey, both comb and extracted. We are looking for an increased consumption of honey this season, as the cost is not high, and is an unequalled substitute for butter to any or all who cannot afford to buy the best butter.

Indianapolis, Ind., Nov. 8.—Fancy white, 11 to 13c.; No 1, 9 to 10c.; fancy amber, 9 to 10c. Extracted, white, 5 to 6c. Beeswax, 25c.

Demand for fancy white comb honey and fancy white extracted is exceptionally good, while there is almost no demand for dark or amber comb or extracted honey.

Cincinnati, Ohio, Dec. 7.—Demand for comb honey has been good for the last few weeks and is fair for extracted. We quote the latter at 3 1-2 to 6c., and comb at 10 to 13c. for best white. Beeswax is in fair demand at 20 to 25c. for good to choice yellow.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN,
120 & 122 W. Broadway.

Kansas City, Mo.
C. C. CLEMONS & Co., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Cleveland, Ohio.
A. B. WILLIAMS & Co., 80 & 82 Broadway.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.
Mr. Selser handles no honey on commission

St. Louis, Mo.
WESTCOTT COM. Co., 213 Market St

Minneapolis, Minn.
S. H. HALL & Co.

Milwaukee, Wis.
A. V. BISHOP & Co.

Boston, Mass.
BLAKE, SCOTT & LEE., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. MCCULLOCH & Co., 380 Broadway.

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C. F. MUTH & SON, cor. Freeman & Central Avs.

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UNTIL FURTHER NOTICE, we will allow 28 cents per pound for Good Yellow Beeswax, delivered at our office—in **exchange** for Subscription to the BEE JOURNAL, for Books, or anything that **we** offer for sale in the BEE JOURNAL. **Or, 25 cts. cash.**

GEORGE W. YORK & CO.,
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For sending us two new subscribers to the Bee Journal for one year, we will mail you the book free as a premium, or we will mail it for sending your own advance renewal and one new yearly subscriber. This is a wonderful premium offer. Address all orders to—

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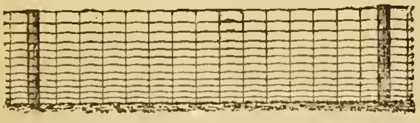

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Beeswax Wanted.

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The Review at Reduced Rates.

The BEE-KEEPERS' REVIEW is $1.00 a year, but, for the sake of getting it into new hands, and being able to begin the year with a large list, I will, until Jan. 1st, send free to each new subscriber, a copy of "Advanced Bee-Culture," a 50-ct. book of nearly 100 pages, that gives briefly but clearly the best methods of management from the time the bees are put into the cellar in the fall until they are again ready for winter—32 chapters in all. Those who prefer can have, instead of the book, 12 back numbers of the REVIEW, the selection to be mine, but no two numbers alike. All who send $1.00 now will receive the last four issues of this year free, and the REVIEW will be sent to the end of 1898. If not acquainted with the REVIEW send 10 cents for three late but different issues.

W. Z. Hutchinson, Flint, Mich.

44E5t Please mention the Bee Journal.

THE "NOVELTY" POCKET-KNIFE!

GEO. W. YORK,
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Your Name on the Knife.—When ordering, be sure to say just what Name and Address you wish put on the Knife.

The NOVELTY KNIFE is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed an AMERICAN BEE JOURNAL reminder, and on the other side, name and residence of the Subscriber.

The material entering into this celebrated knife is of the very best quality; the blades are handforged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring steel, and the finish of handle as described above. It will last a lifetime, with proper usage.

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How appropriate this knife is for a Christmas, New Year or birthday present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, a lady to a gentleman, or vice versa, a son to a mother, a husband to a wife, a brother to a sister or a gentleman to a lady—the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

How to Get this Valuable Knife.—We send it postpaid, for $1. , or give it as a Premium to the one sending us **three new Subscribers** to the BEE JOURNAL (with $3.00), and we will also send to each new name a copy of the Premium Edition of the book "Bees and Honey." We club the Novelty Knife with the BEE JOURNAL for one year, both for $1.90.

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a book of the same size pages, costing also 40 cents, postpaid. Remember, in order to get one of these valuable books all you have to do is to send $1.00 for Gleanings, and 5 cents postage, and we will give you one of them free. Remember, an old subscriber, to be entitled to this offer, must pay up all back subscription, if any, and send in $1.00 for a year in advance, with 5 cents postage.

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37th Year. CHICAGO, ILL., DECEMBER 23, 1897. No. 51.

CONVENTION PROCEEDINGS

Report of the Buffalo Convention of the United States Bee-Keepers' Union.

BY DR. A. B. MASON.

[Continued from page 788.]

Mr. M. B. Holmes, of Ontario, Canada, read the following paper on

Dr. A. B. Mason.

Thomas G. Newman.

The Progress of Bee-Keeping in Canada.

A few weeks ago I received a communication informing me that my name was being placed in the program of this convention, and asking that I at once endorse the action; and notwithstanding the fact that I had sundry misgivings as to the legality of the undertaking (owing to certain existing laws), and as to whether the executive had made a mistake, and as to—well, some other things, I yet had grave fears that it would be a very serious matter to question the wisdom of so great an organization as the United States Bee-Keepers' Union. With this last-named conviction before me, I wrote the Secretary, Dr. Mason, that in accordance with the request of the committee whose duty it was to prepare the program, and in accordance with the venerable exhortation of Holy Writ, which bids us "bow to our superiors, and to those in authority over us," I would endeavor to file an appearance with a paper on "The Progress of Bee-Keeping in Canada."

In the order of a kind Providence, we are permitted to meet in convention and exchange friendly greetings in this, one of the many beautiful cities of a great and glorious Republic, it is certainly a most transporting scene which presents itself to the eye of the beholder as he steps out on this borderland between two great countries. Looking toward the north we see fair Canada, most beautiful and attractive from many different points of view, but most specially noted for the most wonderful wheat fields, the richest of gold fields, and for the variety and excellence of fruits, for the very high standard of her dairy products, etc.

Looking to the southward, we see the wonderful republic of the United States, with its myriads of thriving industries of every conceivable kind, and as the observer admires those two great countries (which are said to be about equal in point of area, if Alaska be left out of the reckoning), he notices that the millions of inhabitants to the north and the millions to the south are apparently one and the same people, and the question at once suggests itself, Why not really and practically one? But, Mr. President, the perplexing question (which has doubtless troubled many of us when considering union in another sense) would ever present itself: If we are to be made one, which one will it be?

Getting now to my subject, I may state that previous to 1880, bee-keeping in Canada was in a very crude state. There were many comparatively large yards of bees throughout the country, but the honey extractor was very little known, and less used. No comb foundation was used, and no sections employed. Comb honey was secured in small boxes placed on top of the honey-board, but the most of those who kept bees got their honey by the old method of brimstoning, and the individual who happened to secure a few hundred pounds of honey was considered very fortunate indeed.

In 1879, Mr. D. A. Jones, of Beeton, Ont., conceived the idea of making a trip to the Far East in search of new races of bees. He accordingly secured the services of Mr. Frank Benton as a general assistant, but principally as an interpreter in the East, as he spoke several languages. For his services, Mr. Benton received a heavy salary, and all expenses paid, Mr. Jones assuming the entire cost of the expedition.

Mr. Jones bought bees in Cyprus and establisht apiaries there, and in many parts of Palestine, Jerusalem and vicinity, and at Joppa and Beyrout, and other places.

Having left Mr. Benton in charge of his interests in the East, Mr. Jones returned to Canada in 1880, bringing with him nearly 200 colonies of bees. He, however, received hundreds of colonies from the East at a later date, as he kept Mr. Benton there for sometime rearing and shipping bees to him. This was the first move toward bringing bee-keeping into prominence in Canada.

In 1880, Mr. Jones made the first large display of honey at the Industrial Fair at Toronto. His exhibit consisted of about 10 tons of extracted honey put up in barrels, kegs and tins. There was no prize offered for honey that year, but the Industrial Board awarded Mr. Jones a massive gold medal on his exhibit. During the progress of the Fair aforementioned, Mr. Jones called a meeting of bee-keepers at the City Hall. Mr. R. McKnight was chairman of the meeting, which in point of attendance and general enthusiasm was an unqualified success. At the close of this meeting, which lasted three days, the Ontario Bee-Keepers' Association was organized, with Mr. D. A. Jones as President, and R. McKnight as Secretary-Treasurer. The constitution and by-laws of the association were drafted by Mr. McKnight, and revised at a later date by the same gentleman to suit the change brought about by incorporation. They have been revised once since that date by a committee composed of Mr. Darling, Mr. Couse, and myself, this revision being necessitated by some slight changes in the Agricultural and Arts Act of the country.

There was no bee-periodical in Canada at that time, but arrangements were made with the publishers of the Canadian Farmer for the use of one of the pages of that weekly paper to be devoted exclusively to bee-literature. Mr. McKnight was duly installed as editor of this department of the Farmer, and had to supply a page of "copy" each week. This state of things continued about three years, when Mr. Jones started the Beeton World, which became the "organ" until he started the Canadian Bee Journal.

The Ontario Bee-Keepers' Association was incorporated in March, 1886, by Act of Parliament, and a Government grant of $500 was given to strengthen the movements of the Association. A Government grant of $1,000 was also given in the same year to send an exhibit of honey to the Colonial and Indian Exhibition, in London England. This was probably the largest exhibit of honey ever made either before or since that date. It freighted 20 tons, and consisted of over 15 tons of honey, exclusive of packages and cases in which it was put up, and was contributed by 26 Canadian bee-keepers.

Messrs. R. McKnight, D. A. Jones, S. T. Pettit, and S. Cornell were commissioned to go with this monster shipment to London, where, under the direct supervision of these gentlemen, the honey was placed on exhibition from the middle of September till the 10th of December, the commissioners all remaining in London until the close of the exhibition except Mr. Pettit, who returned to Canada in about six weeks from the opening of the exhibition.

The management of the business in connection with that exhibit was no child's play. There were four persons employed liquefying, bottling and labelling, and nine saleswomen were employed continuously. All visitors to the building were invited to taste Canadian honey, and in this way about four tons of extracted honey was given away, besides contributions to the Queen, Prince of Wales, Lord Lorne, and other dignitaries.

The entire lot was disposed of at the close of the exhibition, and the contributors were paid 10 to 18 cents per pound for their comb honey, and 10 cents per pound for extracted honey, and pay for all cans or packages holding 10 pounds and under.

I have already told you that a grant of $1,000 was given to help defray the expenses of this exhibit. The Canadian Government also furnisht the building.

A prominent member of the British Bee-Keepers' Association was heard to remark that he did not believe the same number of bee-keepers could be found in all England who could have done as well as the Canadian Commissioners in charge of the honey exhibit; and it goes without saying that they won the admiration of all Canadians while in discharge of duty in that capacity.

A few years later the attention of the Government having been drawn to the fact that a contagious disease known as foul brood was playing havoc in the apiaries in some districts of Canada, a Bill was introduced in Parliament to the end that the disease might be stampt out. This Bill provided for an inspector and sub-inspector of apiaries, those officials to be the appointees of, and amenable to, the Ontario Bee-Keepers' Association, subject, of course, to the approval of the Minister of Agriculture. Complying with the provisions of the Act in that regard, we have Mr. Wm. McEvoy, as Inspector, and Mr. F. A. Gemmill as assistant. These gentlemen are too well known to need introduction here. In passing, however, it is most pleasing to note that the disease is fast disappearing under their skillful management. So apparent has this become that the bee-keeping world are becoming interested in the "McEvoy Foul Brood Treatment." The "Act for the Suppression of Foul Brood Among Bees" became law in Canada in the year in 1890.

In 1891 a Bill was introduced in Parliament prohibiting the spraying of fruit-trees with poison during the time such trees were in bloom. This Bill was assented to in April, 1892, and came into force the first day of January, 1893.

I might go on lengthening out the list, but enough has been said along this line to convince you that not only are the bee-keepers of Canada alive to their own best interests, but that the Government of Canada fully realizes the importance of the industry, and are willing to foster and protect it whenever and wherever it is necessary. The last census reported about 170,000 colonies of bees kept in Ontario, and it is estimated that a large proportion (perhaps four-fifths) of the bees kept in Canada are in Ontario.

A passing notice of Canada at the World's Columbian Exposition would very properly come in here, and you will kindly allow me to make a few brief extracts from the report of the late lamented Allen Pringle, Canadian Commissioner at the World's Fair.

"Twenty foreign countries and 17 States and Territories of the American Union made apiarian exhibits in Jackson Park. Ontario took 17 apiarian awards. This number of awards is more than twice as many as that taken by any State in the Union, or any other foreign country. In fact, it is more than all foreign awards combined. Our apiarian exhibit at the World's Fair cannot fail to enhance the standing and promote the future interests of apiculture in Canada."

My remarks in reference to the enterprise of D. A. Jones may have conveyed the idea that he was the first to introduce the bees from the Far East into Canada. To remove this impression, I might say that as far back as in the '60's, a firm known as the Thomas Bros., of Ontario, sold Italian queens quite extensively, and there may have been others selling them at that time; but interest seems to have died out to a considerable extent until the date of Mr. Jones' venture.

The honey harvest just closed would seem to be a fair, average crop. To the south and west a good yield is reported, while the north and east report very light yields.

And now, ladies and gentlemen, may I dare to entertain the hope that your anticipations have been in some small measure realized in my effort to picture to you the "Progress of Bee-Keeping in Canada," and wishing each of you an overflowing measure of success and happiness in life, I beg leave to conclude. M. B. HOLMES.

The balance of the report will be of a miscellaneous character, composed of various matters that came up and were acted upon at different times during the three days' meeting.

Report of the Committee on President's Address.

1st. We recommend the distribution of honey leaflets among consumers, educating them as to its uses and benefits. We also recommend the distribution of leaflets showing the benefits of bees to the farmer and horticulturist, not overlooking the spraying of fruit-trees while in bloom, and the injury done to the blossoms by this untimely spraying. We hope this Union will endorse the passage of the New York Mark's Bill introduced by Mr. Raines and killed by Gov.

Black. Bee-keepers should not only distribute leaflets as above, but should have as much as possible of the matter of these leaflets printed in their local papers.

2nd. We recommend that the Board of Directors of this Union open communication with the California Bee-Keepers' Exchange with the idea of co-operation with them as to marketing honey, so that the honey of one section shall not come unduly in conflict with another, thereby glutting markets and lowering prices.

3. We recommend the appointment of a committee by the Board of Directors to grade honey and to report in our periodicals in six months from their appointment, and the same to be presented at the next meeting.

4th. If the Directors of the Union shall find it practical, we suggest that they furnish Union labels guaranteeing the purity of the honey to a cannery or canners putting up a pure extracted honey, the Union to assume no liabilities except as to purity, and that to be covered by a bond taken by the Directors.

P. H. Elwood,
E. Whitcomb, } *Com.*
David N. Ritchey,

Apiarian Superintendent at Omaha.

Whereas, Many prominent bee-keepers of the West are asking the appointment of Hon. Edward Whitcomb as General Superintendent of apiarian exhibits at the Trans-Mississippi Exposition to be held at Omaha, Nebr., in 1898, be it

Resolved, That the United States Bee-Keepers' Union in convention assembled do hereby endorse his candidacy, and respectfully ask the management that he be appointed for that position; and the Secretary of this Association is requested to forward a copy of this preamble and resolution to Mr. E. E. Bruce, Superintendent of Exhibits, Trans-Mississippi Exposition, Omaha, Nebr. (Carried.)

Resolution on Apis Dorsata.

Resolved, That this Union commend any effort which may be made to learn the relative value of Apis dorsata, and other foreign bees, and their adaptability to the climate and surroundings in the United States. (Carried.)

Report of Committee on Resolutions.

We, your committee appointed on resolutions, desire to report the following:

Resolved, That the thanks of this Union be and are extended to the citizens of Buffalo for all courtesies shown us or its individual members;

Resolved, That we extend our thanks to the management of Caton Business College, for the very generous use of their spacious hall, and many other courtesies shown this Union and its individual members, with the assurance that we shall carry to our homes many fond recollections of these courtesies;

Resolved, That the hearty thanks of this Union are due Mr. O. L. Hershiser, for his earnest efforts in behalf of this meeting, and its ultimate success, without which it would have suffered many inconveniences.

E. Whitcomb, } *Com.*
E. R. Root,

Report of the Obituary Committee.

Whereas, The United States Bee-Keepers' Union has been robbed of two of its loved and valued members by the cruel hand of Death; therefore, be it

Resolved, That in the death of Mrs. A. L. Hallenbeck and Mrs. J. N. Heater, this Union has lost two of its most respected and valued members; and the bee-keepers at large have lost valuable lights, to whom they could look for much help in the vocation of bee-keeping; further be it

Resolved, That the Union deeply sympathize with the relatives of the deceast, feeling, however, fully assured that their irreparable loss is to the eternal gain of those loved departed ones; and

Resolved, That these resolutions be spread upon the records of this Union, and a copy be forwarded to the relatives of the deceast.

Eugene A. Wander, } *Com.*
Wm. Couse,

Questions Answered by Dr. Miller.

The following questions being in the Question-Box when the hour for adjournment came, it was voted that Dr. Miller be requested to answer them in print, which he has kindly done:

WHAT TO DO WITH LATE SWARMS.

Ques.—What would you do with swarms that came off this time of year?

Ans.—That depends somewhat on circumstances. Under ordinary circumstances the best thing to do with a swarm coming off the last of August would be to put it back where it came from, and tell it to behave itself. If anxious for increase, it might be well to hive it, and then see that it should have enough stores for winter, feeding early if necessary.

CLARIFYING HONEY-VINEGAR.

Ques.—What is the best way to clarify honey-vinegar?

Ans.—The books have a good deal to say about making honey-vinegar, but are silent as to any method of clarifying. From this, one would judge that it was not considered a matter of great importance, and that generally it was used without being clarified. I have a dim impression that I have read of using a small amount of yeast, but I may be mistaken.

MAKING NUCLEI, OR NATURAL SWARMING, FOR INCREASE.

Ques.—Enquirer has bees he wishes to increase to double the number of colonies; which is the most profitable, to make nuclei in the spring or to allow natural swarming?

Ans.—If natural swarming be allowed, the bees may not swarm enough to double, or they may increase more than desirable. With the nucleus plan of increase it would be easier to hold to the exact number. Probably, however, most bee-keepers would do better with swarming, and, in general, each one would do well to take the plan with which he is most familiar and most successful in the past.

WINTERING BEES IN THE FRUIT CELLAR.

Ques.—Can bees be wintered successfully in *solid*-bottomed hives in the cellar with potatoes and fruit?

Ans.—The presence of fruit and vegetables in a cellar need not prevent successful wintering, provided the care is taken that should in any case be taken to prevent the accumulation of decayed specimens. If "solid-bottomed hives" means those without any chance for ventilation below, such hives may be successful if they are open on top. If it means hives with bottoms nailed fast, and with the usual summer entrance, such hives may also allow successful wintering if the air of the cellar is good, but there is decided advantage in having a large opening at the bottom and a space of perhaps two inches under the bottom-bars.

"MAIDEN" OR "VIRGIN" SWARM.

Ques.—Is a swarm that issues the second time in one year with the old queen properly named "maiden" or "virgin" swarm?

Ans.—There certainly does seem to be some inconsistency in such naming, and it would be interesting to know on what ground such terms ever came into use. The first swarm of the season would seem to have a better right to be called "virgin" than any later issue; but long use has establisht the matter so that it would be difficult to change it.

WINTERING BEES IN A BARN.

Ques.—If bees are in a barn, with entrances on the side of the barn, and covered with straw, can they be wintered successfully?

Ans.—Probably they can in a mild winter or in a mild climate. I knew of one case where 40 colonies were so wintered in northern Illinois, and the experiment was a dismal failure.

COMB HONEY CELLS FILLED WITH POLLEN.

Ques.—Why do many bee-keepers who use patent hives, separators, and all the late appliances, get many cells filled with pollen, while one who uses Quinby hives, no separators nor queen-excluders, has not had half a dozen such cells in 20 years?

Ans.—I don't know. I've just a little doubt whether many with latest appliances are very much troubled in that way, and yet every now and then some one reports an aggravated case. It's a matter that seems just a little mysterious, and it is to be hoped that some one may give some light upon it.

PRICE OF COMB HONEY AND COST OF ATTENDING THE CONVENTION.

Ques.—How much per pound should comb honey sell for, to equal the price per mile we paid to reach this convention?

Ans.—I think I'll refer that question to my good friend, G. M. Doolittle, who is more skilled than I am in intricate financial problems.

Some questions that were handed in are omitted, as being of such character as to require something like a vote of the members of the convention. Indeed, it seems hardly the thing that questions handed in at a convention should not be answered on the spot, so as to have the advantage of possible new light from members present. C. C. MILLER.

Hon. Eugene Secor sent the following poem, which was read by the Secretary:

IF.

Have you ever heard, my brother, of the State of Might-have-been—
A State beyond the mountain If, and with naughty Buts hedged in?
I am sure you never *saw* it, except in sleep or day-dream,
Because it is a *Fairy* land, where *Fancy* reigns supreme.

As over the hills of Effort with heavy step we go,
We question if some other road had wearied our bodies so;
And when the sweets of love and life shall granulate with age,
How many men shall be content with earthy gains or wage?

We roam the fields of Fancy o'er and wonder what we'd be
If fortunate environments had schooled us differently;
Perhaps instead of poverty, and hands sunburnt with toil,
We might have sipt life's honey-dew from others' sweet and moil.

If the summer skies were cloudless, and the clover bloom more sweet,
If the wings of bees were tireless, and haply still more fleet,
Of course we'd have our pitcher out, and always right side up,
To catch the golden drops of mel distilled in flowery cup.

And then if Mr. Glucoseman would use his conscience more,
And give a suffering public rest from the stuff *he* makes galore;
If commission-men were honest all, giving every man his due,
We'd have less work for the "Union," and less for lawyers, too.

Then if the price of honey'd jump right back to where it stood
When the boys in blue confronted the hordes of Lee and Hood—
O what a happy time we'd have as the ever tuneful bees
Brought in the wealth from clover field or fragrant linden trees.

There's always something 'bout this world that might have been improved
If *our* advice had been invoked before the old thing moved.
We would have made Prosperity one wide, delightful plain—
No blighting winds, no killing frosts, no drouths nor needless rain.

The difficult Hill of Bunyan *we* we would have placed in the moon,
Where none would see it but lovers who climb such hills in a "spoon."
The burdens of daily labor would fit the patient mule
Much better than us, my brother, who were made to *rest and rule.*

The bees of *our* creation would have had much stronger wings,
With longer *tongues* for business instead of such horrid stings;
But if they *must* have formic weapons to drive away the thieves,
They ought to save the sizzling strength they waste within *our sleeves.*

But what's the use of whining so, because we cannot have
Our own sweet wills in everything, and all the world our slave:
It's doubtless best and wisest that not all we want is given;
Were the cup of Life *all* nectar we might lose our taste for Heaven.

EUGENE SECOR.

Mr. Thomas G. Newman, General Manager of the National Bee-Keepers' Union, sent the following communication to Mr. O. L. Hershiser, to be read to the convention, which was done by Mr. H. at the first day's meeting:

An Official Communication from the National Bee-Keepers' Union.

To the Officers and Members of the North American Bee-Keepers' Association, lately called the "United States Bee-Keepers' Union."

LADIES AND GENTLEMEN:—

I address you by your legally-incorporated title, because I learn through official sources that you have never taken the necessary legal steps to change the name given in the incorporation papers some years ago when by your order and vote I was made chairman of the committee on incorporation, and did that work and made my report which was duly approved by the association. For proof of which see the printed report for 1891, a leaf from which I enclose for your convenient reference.

As a "life member" of this organization I respectfully call your attention to the enclosed printed criticism on the constitution adopted at Lincoln, Nebr., last year. This criticism I was then invited, by your Secretary, to make, and promptly did so. Some did not take kindly to it, but the *facts* remain just the same, and *demand* your careful consideration. I submit the whole to you for that purpose, and respectfully request you to appoint a competent committee to consider the matter and make a report thereon, for your further consideration and action.

The constitution and your offer of amalgamation on it were submitted to vote at the annual election of the "National Bee-Keepers' Union" last winter, with the following result: For amalgamation, 51; against amalgamation, 106; for adoption of constitution, 43; against its adoption, 100.

Had the constitution been yet in the hands of your committee with codification powers to harmonize and perfect the same before submitting to the "National Bee-Keepers' Union," I imagine that the vote would have been reverst—for I feel sure that *all* the members of the "National Bee-Keepers' Union" fully approve of the work proposed to be accomplisht by the "amalgamated society" had the vote been in favor of uniting; the principal objections to it being the crude and imperfect "document" presented (which no one was empowered to amend), and the persistent demand that it be submitted to vote immediately, just as it was then presented.

To this I objected because of the injustice it imposed on the members of the National Bee-Keepers' Union, and requested that it be referred to this meeting for amendments. Some of the amalgamation advocates then publicly abused me personally, for they could not refute my arguments. Tho this was annoying it did not injure me, as the vote before mentioned shows the fullest endorsement of my course by the members of the Union.

Then Prof. Cook persistently advised the members of the National Union to write to me, demanding that I ignore the wishes of the majority, as shown by the late vote, etc. I am glad to say that not *even one* member did so. They were evidently *all* law-abiding, and believed that the majority should rule and its decision be obeyed.

I am for *peace* when I can have it, but if I must fight, I will do it with all my might—in the interests of justice, honor, and integrity, and I think I can defend the Union against its enemies from within the ranks of bee-keepers just as successfully as I have always defended its members from the enemies of the pursuit.

On the real issue of making only one organization of the two by amalgamation, I have never yet exprest an opinion, because I was undecided whether it would be beneficial or otherwise. The very lack of thoroughness and aptitude shown by the zealots who assailed the character and motives of one who simply pointed out the defects in a "document" they had gotten up did not assure me that they would successfully manage such critical and important matters as trials in the courts for the defense of the pursuit.

I am now satisfied, however, that the lately-appointed General Manager, the Hon. Eugene Secor, with his cool head and legal acumen, can be trusted with such duties. I should have been delighted to have *honorably* retired last winter, but I will never do so while those who should be my friends *insinuate* anything against my motives, reputation or management. My record is made, and it is one that I am proud of, and I *defy* any one to truthfully tarnish it.

This I will say, however—if you will amend the constitution so as to make it efficient and consistent, cease your personal abuse of me, act like men of honor—I might be able to endorse such an amalgamation proposition, and ask my friends to vote for it, as well as to gladly retire in favor of the Hon. Eugene Secor (now one of the Advisory Board of the National Bee-Keepers' Union as well as your General Manager) whom I know to be honorable, and feel sure would make a successor worthy of the position, and thus unite both organizations.

Desiring not to lengthen this communication, I will close by saying that I am sorry not to be able to be present to take part in your deliberations, and desiring that your sessions may all be harmonious, and eminently beneficial to the pursuit, I remain, Sincerely yours,

THOMAS G. NEWMAN,
A "Life Member" and Ex-President.

On motion of Mr. Abbott, the foregoing communication was ordered printed in the regular proceedings without further reference or discussion. The last day of the convention, Secretary Mason presented the following:

Action on Amalgamation.

Sec. Mason—Mr. President, as there may sooner or later be an inclination on the part of the members of the National Bee-Keepers' Union to help put the United States Bee-Keepers' Union on a more substantial basis, both by their influence and their money, I move that a committee be appointed by the President to devise some plan by which so desirable an object may be accomplisht whenever the Advisory Board of the National Bee-Keepers' Union may signify a wish so to do. (Motion adopted, and the Board of Directors appointed as such committee.)

Report of the Secretary.

Mr. President and Fellow Bee-Keepers :—

I hardly know what ought to be included in my report, and I'm not responsible for being on the program. The responsibility is all on President York, it being a piece of foolishness. I protested against it, but as I thought the matter over I came to the conclusion that it wouldn't be a bad plan after all. It will give future Secretaries a chance to vent any spite they may have, and to publicly come out of the "little end of the horn" whenever they may wish to, and sometimes when they *don't* wish to.

But, seriously, no one knows the condition of the Union as well as the Secretary ought to know it, and if you are all as much interested in the objects of our organization as I know a goodly number—yes, a *large* number are, you will be glad to know just how the United States Bee-Keepers' Union came into existence, what has been done, and what condition we are in to-day, for usually when people contribute money to any organization they like to know what has been done with it, and what is being accomplisht.

As is well known to most readers of the bee-periodicals, the United States Bee-Keepers' Union came into existence because of the demand of bee-keepers for an organization that would not only defend its members in their rights to be the producers of honey, but also take steps, as far as possible, to do away with its adulteration ; and also to see that honey-dealers treat its members, who consign honey to them, in an honest, businesslike manner.

With this end in view, a committee of seven was appointed at the convention in Toronto, in 1895, for the purpose of devising some plan by which the North American Bee-Keepers' Association and the National Bee-Keepers' Union could be united and make one strong organization ; but after quite an amount of correspondence among the members of the committee, the chairman, for some unexplained reason, allowed the matter to drop, but not being willing to let the matter go by default, some of the members of the committee, with others, prepared and presented to the Lincoln convention a plan for the union of the two organizations, which after a few changes was drafted, and is now the Constitution of the United States Bee-Keepers' Union.

An effort was made to have the National Bee-Keepers' Union adopt this Constitution, and thus unite the two organizations, leaving the old officers of the National Bee-Keepers' Union in full control of the new organization, but through the efforts of the General Manager of the National Union, and misapprehension and misrepresentation by others, of the objects in view and the spirit of those favoring the Union, the measure was defeated, and the United States Bee-Keepers' Union came into existence, and for a "kid" less than five months old, is remarkably healthy and vigorous.

Many letters of congratulation and wishes for its healthful growth, and success in business, have come to your Secretary, and these congratulations have always been accompanied by substantial evidences of appreciation in the shape of cash remittances to aid in setting the "kid" up in business.

The union of the two organizations having been defeated, it became the duty of your Executive Committee to appoint a Board of Directors ; and feeling that the members of the Union ought to have a voice in saying who should constitute said Board, they called for an expression of the members as to whom they would prefer, promising to appoint those receiving the largest number of votes. The result was that the Hon. Eugene Secor, of Forest City, Iowa, was appointed General Manager ; and Rev. E. T. Abbott, of Missouri, C. P. Dadant, of Illinois, W. Z. Hutchinson, of Michigan, Dr. C. C. Miller, of Illinois, E. R. Root, of Ohio, and E. Whitcomb, of Nebraska, were appointed a Board of Directors, with E. R. Root as chairman.

The Union has already accomplisht something in carrying out one of the objects of its organization. In October, 1895, one of its members, Mr. P. H. Elwood, made a consignment of honey to a commission firm, and altho the firm was well rated in Bradstreet's as well as in Dun's mercantile reports, he could get no returns or satisfaction. He wrote to the Secretary of the Union in regard to the matter, who at once wrote the firm, stating the objects of the Union, and that it did not intend to be unreasonable with honey-dealers, but proposes to see that they deal honestly and justly with such members as make consignments of honey to them. A prompt settlement with Mr. Elwood was the result, and he writes me that the interest on the amount will much more than pay his membership fee to the Union as long as he lives ; and I'm not sure but he is seriously contemplating donating the whole amount to the Union ! The cost to the Union in this case was 16 cents.

Another member, a Mr. A. D. Watson, of Pennsylvania, made a sample consignment of honey to an Ohio commission firm, and could get no satisfaction, but through the efforts of the Secretary of the Union settlement was soon made.

FINANCIAL STATEMENT.

Up to this date, Nov. 30, 1897, the Secretary has this statement to offer :

RECEIPTS.

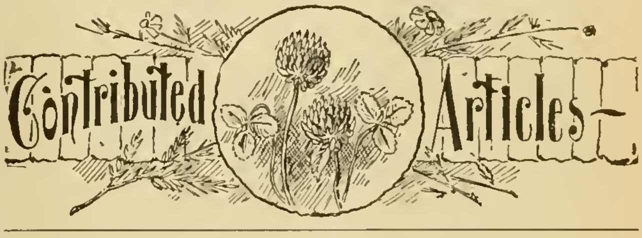
Fees for membership	$232 50
For 95 Buffalo programs	4 75
Total	$237 25

DISBURSEMENTS.

For postage and stationery	$12 91
Printing programs, etc	14 25
Badges	3 00
Telegrams	1 00
Miscellaneous	1 00
Secretary's salary	25 00
Total	$57 16

The total membership of the Union at this date is 299.

A. B. Mason, *Sec.*



Mailing Queen-Bees—Something Historical.

BY PROF. A. J. COOK.

We have all read in the bee-periodicals and in other papers, of loose bees in the New York post-office. We have but to remember how nervous the average man or woman is in the presence of our little friends of the hive, to imagine the consternation that must have accompanied this escape of bees from some illy or carelessly adjusted queen-cage. It is very unfortunate that this accident occurred, which misfortune is emphasized in the publicity that is given to the circumstance by the wide publication in the newspaper press of the country. I have read of the event in five or six papers, which makes it probable that hundreds of papers have heralded the report broadly throughout the country.

A BIT OF HISTORY.

It is now almost 20 years since bee-keepers have been permitted to mail queen-bees without let or hindrance. It will be remembered that some time previous to that date the postal authorities had permitted the mailing of queen-bees, but had placed an interdict on the practice because the honey placed in the cages to serve as food for the queen and her attendants in transit, would leak out and daub the mails. Another grievance was the fact that the mail-clerks would occasionally get stung. So far as I can remember there was no complaint of the bees breaking out from the cages. As will be remembered, great effort was made by personal letters, interviews and petitions, to secure a removal of this interdict. The postal authorities were obdurate to all entreaties, and persistently refused to grant the request.

About this time the North American Bee-Keepers' Association met at Chicago. I think it was in 1878. It was one of the strongest and best meetings of bee-keepers ever held in this country. At that meeting a bitter complaint was made against the ruling, denying bee-keepers the privilege of mailing queen-bees. It was shown that the cost and labor in the remote regions, securing queens by express, amounted to many dollars, whereas it would only be one or two cents if the mails could be used. The writer stated, at that meeting, that with the authorization of the Association, he believed that by a personal visit to Washington he could secure a withdrawal of the obnoxious ruling. Whereupon he was, at once, authorized to act for the Association.

In the preparation for the appeal I secured cages provisioned with candy, that could not possibly daub any mail matter, and also so made that it would be impossible for any one handling them to be stung. I also found places where people in remote districts had been obliged to travel many miles to an express office, whereas a postoffice was in near range, and had had to pay a hundred, and even a thousand, times as much as would have been required, could use have been made of the mails.

PRESIDENT HAYES GIVES AID.

On my way to Washington I stopt over at Phildelphia, and by an accident was compelled to wait over one train. This was a vexatious circumstance, but proved to be most fortunate. Coupled to the train that I did take was the private car of President Hayes, in which he and his family were en-route from New York to Washington. A son of the President, who was at the time a student of our college (the Michigan Agricultural), and who was in the car with his father, saw me through the window as I boarded the train. He soon came into the car where I was, with an invitation from his father for me to join their company. I thus had the pleasure of sharing the car and company of the President of the United States.

After we had discust various topics, the President askt me, jocosely, if I was going to Washington as one of the great throng—he did not say unwasht throng—of office-seekers. This gave me an opportunity to explain my mission, show my cages, and expatiate upon the wrong done by the ruling of the Postoffice Department, and the fact that such ruling was now as unnecessary as mischievous.

The President seemed much interested, and quoted Lincoln to the effect that tho he had not much influence with this administration, still he thought he might aid me. He then penciled on a card that he knew me, was apprised of my purpose in visiting Washington, and hoped that the good of the Post-office Department would not suffer if my request was granted. I was thus beautifully introduced to the various heads of the great postal service.

The next day the late Edwin Willets, then Member of Congress from Michigan, accompanied me on my rounds, as I laid the matter, as best I could, before the several authorities whose sanction must be won, to secure the removal of the interdict. When I showed Mr. Willets the card from President Hayes, he said, "That is a veritable 'trump.' That will be the winning card in your quest."

The point most urged as I discust the matter was this: "Are you sure you can prevail upon all shippers of queens to use the cages you show us, and to exercise such caution that the evils complained of in the past shall not be experienced in the future?" I was confident that this could and would be be done, and exprest the same, as best I could. I was told that if the permit was given, and complaint came again, that a lasting, irrevocable interdict would doubtless follow.

We all know that my mission was successful. Congressman Willets, who afterward became my true and tried friend, was a great aid in the accomplishment of my mission. It only remains to be said, that it is too bad to put this privilege in jeopardy by such carelessness as resulted in the flight of bees in the New York post-office. Los Angeles Co., Calif.

⁂

Pickled Brood and a Kind of Mold.

BY DR. W. R. HOWARD.

Some time ago I received the following letter from Prof. J. E. Armstrong, of Cook Co., Ill.:

DR. WM. R. HOWARD—*Dear Sir:*—Upon Mr. York's request, I send you a piece of comb containing diseased larval bees, for identification. It does not seem like foul brood since it attacks the larvæ only at the time of feeding pollen, and does not become ropy. It does not seem like pickled brood, because there is some odor, and the center of the cap is ruptured. It first appeared among my bees a year ago in August. Very few bees reacht maturity after that. I cut out all comb containing dead brood, in hopes the disease would disappear. As the old workers died off in the fall, there were no young ones to take their place, so that 5 out of 8 colonies perisht before time to put into winter quarters. The three remaining were greatly weakened, and perisht by midwinter. The combs were coated with a heavy mat of white mold.

I purchast two new colonies in the spring, and as one was in a small, odd-shaped hive, I transferred it to an old hive that had been used the previous year. I gave them full combs that had been extracted the year before, but no brood had ever been in them. This colony took the same disease. The other colony has not yet shown any signs of the disease. I thought last year it was not foul brood, and so was not as careful as I should be about combs, etc., but I am treating it as foul brood this year. I would like to hear from you through the Bee Journal. Respectfully yours,

J. E. ARMSTRONG.

ANSWER.—The combs sent by Prof. Armstrong, principal of Englewood High School, Cook Co., Ill., containing dead brood, have been carefully examined and found to contain the white fungus (*Aspergillus*) of "pickled brood" in abundance; also a form of *mucor*, a kind of mold, which I have not taken the time to determine the species. Besides these, many very small mites resembling the common sugar-mite, found in unrefined sugar, are present; whether these play an important role, as a cause of the death of the bees, I am unable from the material in hand to determine. In Europe a closely allied species destroys the adult bees. These mites may have been introduced, accidentally, by feeding syrups made from raw sugars, or by the bees gaining access to exposed sugars in warehouses. There is no evidence of foul brood (*Bacillus alvei*).

These mites raise a very important question, and a close watch in this line may lead to some discovery toward a solution of the "new bee-disease," "spring dwindling," etc.

Tarrant Co., Tex.

⁂

Bees Killing Each Other—Laying Workers.

BY W. W. M'NEAL.

On page 663, under the heading, "Bees Killing Each Other," the questioner is right when he says the trouble is between the regular inmates of the hive. And in his answer Dr. Miller is getting pretty close to facts when he states that proper ventilation may be responsible for the cropping out of the disease. I think there can be no question about its being a disease, tho it is not manifested to any noticeable degree till a certain temperature has been reacht within the hive. These cases, according to my experience, are always to be met with early in the season, when apple is in bloom, or a little later. Of course, there are seasons when the weather is cold at this time, and the bees do not work. But when the weather suddenly turns warm, and the early bloom yields well, and when the bees are still confined to the brood-chamber with the entrance to the hive not yet enlarged from what it was during the winter, then is when a high temperature is apt to be reacht within the hive. I am not now positive that I ever saw a colony ball its queen under these conditions, tho they *do* sting each other to death in pretty much the same way. I tell you, the destruction some times is appalling, one-half or more of them being killed off in just a few hours.

Abundance of ventilation is the first thing to be given; and this is all that I know to do for them. When you see a bee with a shiny tip, sitting down at the entrance, with a few others gnawing and biting at her, keep a watch on that hive. A robber bee never sits calmly and allows herself to be bitten and teased, unless it is a queenless colony or one that offers little or no resistance, that she is trying to gain an entrance into; and an honest, ladened bee, just returning from the field, and drops at the entrance of another hive, seldom if ever shows the shiny tip.

Notwithstanding that the cooling of the hive will restore order, I have learned not to expect much in the way of surplus of a colony that is affected. The hive must be kept too cool for good work; and if it is closed sufficiently to get them down to good work early in the season, the trouble is sure to re-appear.

KNOWING A LAYING WORKER BY HER LOOKS.

I would like to say a word or two about laying workers. How many of the readers of the Bee Journal ever lookt for a laying worker? The "idea needs encouraging," that a laying worker *can be seen and told by her looks*. But still I would not give much for a colony that was infested to the extent of capt brood from those workers. When they have reacht this stage it seems so plain to me that any one who will take the trouble to open his eyes and look, cannot fail to pick them out from among the others. Why, just hold the comb up before your eyes, and simply look at it, and if you can't see these workers by the deference the other bees show them, then you can't find a queen by the same means. These bees always have a "soakt" appearance from having become a gormandizer, just as a bee that has followed robbing for a few days assumes pretty much the same color from her gluttonous way of living.

The others form a circle about a laying worker, as tho she were a real queen, and are constantly offering her honey, which she as constantly seems to accept; so again, she is almost constantly wiping her mouth. I have often taken these bees and caged them with a queen-bee to see if they would fight, but in no case did they do so. But give them to a colony that has a queen, and they will ball them just as they do a strange queen.

I have never seen them in the act of laying, but I am inclined to the belief that they lay their eggs on the face of the comb, when they are then taken by others and placed, which accounts, perhaps, for the indiscriminate way we find them in the cells. I may be mistaken in this, for a good, prolific queen will often pile the eggs into the cells in much the same way, if not worse, if the strength of the colony is not equal to her ability.

My remedy for laying workers is just to break these colonies up. I find it the cheapest, quickest, and best way to deal with the few cases that occur in a well-regulated yard. These and moth-worms are the fruits of carelessness on the part of the apiarist. If I had no more to contend with I would think bee-keeping easy. Poor seasons bother me worse. But this one (1897) proved to be that long-talkt-of "good year." It made me feel good! Scioto Co., Ohio.

The National Bee-Keepers' Union.

Under this heading Mr. Muth-Rasmussen, on page 759, says that amalgamation should have been discust "before the Buffalo convention," and then adds: "But as nobody has brought the subject up, I now make this proposition," etc.

As no report of that convention had been publisht when he wrote, how did he know that nobody brought the subject up?

To prove to the contrary, let me say that I prepared a communication which was read at the Buffalo convention, and if any action was taken thereon I have not heard of it. [See page 804.—Editor.]

I am informed by Pres. York that the communication with the accompanying documents were mislaid or lost, and that he thought no action was taken thereon, other than to order them publisht in the report. Mr. Muth-Rasmussen is therefore not justified in saying that "nobody brought the subject up at the Buffalo convention." I did so, but the "overtures" I made were ignored entirely by the *only body* that *could* act in the matter. So that ends amalgamation until another annual meeting.

This "lost opportunity" makes *nonsense* of the articles on pages 759 and 760, about "uniting the two Unions." The second "Union" was created by attempting to change the name of the North American Bee-Keepers' Association to the "United States Bee-Keepers' Union." This was done to attempt to *force* the National Bee-Keepers' Union to amalgamate with it. The latter, however, refused to amalgamate, and so there are now "two Unions." But who is responsible for the duplication? Certainly not the National Bee-Keepers' Union, which has been at work assiduously for the past 14 years. That Union was created for the purpose of defending bee-keepers in their rights, and refuses to be compelled to take up any other work at the instigation of a yearling organization.

The failure to re-submit amalgamation to vote this winter rests entirely upon the non-action of the Buffalo convention. If any one is to be censured, let it be justly awarded.

DR. BESSE'S SWEET CLOVER LAWSUIT.

About this I desire to say a few words. Dr. Miller's retraction is all right. But had I not learned of the statement having been made that the National Bee-Keepers' Union had given no aid to Dr. Besse—what an *injustice* would have been done!

For any one to *think* that the National Bee-Keepers' Union is doing nothing for its members, and to then state it as a *fact* without *knowing* anything about it, is an outrage. "Love thinketh no evil." Justice waits for proof before condemning.

A bee-man, who unfortunately has fruit-men for neighbors, was put into jail in October for maintaining a nuisance. The Union is helping him to appeal the case to the Supreme Court. Is that nothing? Several cases in the courts have been *won* during the past three months—is that nothing?

To all who do good, whether men or organizations, I say "Godspeed." I have neither time nor inclination to envy or abuse my co-workers, and heartily wish all others would act on the same principle. Let us all try to do good.

Thomas G. Newman,
General Manager National Bee-Keepers' Union.
San Francisco, Calif., Dec. 6, 1897.

[Perhaps only two things in the foregoing article need any attention from us, viz.:

First, we think that Mr. Muth-Rasmussen meant that nobody had recently brought up the amalgamation subject *previous* to the Buffalo convention, in the bee-papers. But he is likely of age, and can answer for himself as to this.

Second, in referring to changing the name of the old "North American" to "United States Bee-Keepers' Union," Mr. Newman says: "This was done to attempt to *force* the the National Bee-Keepers' Union to amalgamate with it." We wish to say such statement is *entirely wrong*, as we were present all the time when the change was made, and would simply commend to Mr. Newman his own utterance, a little further along in his article, where he says; "For any one to *think*......and then to state it as a *fact*, without *knowing* anything about it, is an outrage! 'Love thinketh no evil.'"

Judging from the resolution on amalgamation adopted at the Buffalo meeting, it would seem that if the two existing Unions are to be united by vote, the first move toward it will have to come from the old Union. But we begin to feel that there may come about a uniting of the two "colonies" into *one* big, strong "colony" without either "colony" voting upon it.—Editor.]

BEEDOM BOILED DOWN.

Changing Queens.—The question is askt in the Canadian Bee Journal, "Is it a good plan to change queens annually?" The replies are all in the negative.

"**Large Entrances** for hives are being advocated, and I think it is a move in the right direction. A large entrance can be contracted, but a small one cannot be enlarged."—Review.

Getting Outside Sections Finisht.—Gleanings says that the coming season the new fence separator with the no-bee-way sections will take advantage of the Pettit plan: that is, the fence separator will be used not only between the sections, but outside of each outside row of sections.

The Bee-Moth's Eggs, Mr. Hutchinson, in the Review, says he *knows* are destroyed by a zero temperature, from repeatedly storing empty combs in the fall where they would freeze in the winter. But combs from colonies that died in late winter or early spring were sure to become wormy.

Large Average Yield.—Mrs. Spencer gives in the British Bee Journal an account of the bees of J. McArthur, of Toronto, mentioning their remarkable gentleness, and giving their average yield as 250 pounds per colony. If there is no mistake in the figures, that is an average to challenge the whole world.

Giving Brood to Strengthen.—A German writer thinks taking brood from one colony to give to another is like taking a piece of money from one pocket to put in another. It's all right if the pockets are all right, but if there's a hole in the second pocket you lose your money. So if the brood is given to a colony too weak to care for it, you lose your brood.

Managing Apiaries.—A notable case is mentioned by the editor of the Review. Mr. Koeppen, living near by, has managed five apiaries during the past season, harvesting 12,000 pounds of comb honey, doing all the work himself, except to have one man's help for about a week. There had been no swarming worth mentioning, and with young queens he says there is no trouble in preventing swarming.

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Editorial Comments.

A Very Merry Christmas we wish to every one of our readers and their families.

◆

A Splendid Christmas Present would be a year's subscription to the American Bee Journal, given to a bee-keeping friend or relative. Yes, and a good bee-book is another. Either would doubtless be very acceptable to the recipient. Try it and see. See page 811 for book-list.

◆

"**Plan Your Work Well,** then work your plan well," is the text Somnambulist of Progressive gives in the middle of a little sermon urging that bee-keepers must not go into winter quarters like their bees, but must be wide-awake all the winter through, studying, learning, planning, getting ready for the future. Sommy chuckles quietly because he wasn't caught napping, as so many were last season, with not enough supplies on hand when the honey harvest came.

◆

A Honey-Circular, similar to our "Honey as Food," The A. I. Root Co. have been enclosing with each letter they send out from their office. One of these circulars fell into the hands of H. W. Richardson, Section Director of the Government Weather Bureau at Columbus, who was so interested in it that he handed it to a reporter who gave it a handsome write-up, making liberal extracts therefrom. Gleanings thinks bee-keepers would do well to hand a honey-circular to local editors, and ask them to give it a write-up and make extracts. Also to put a copy of the circular in every letter sent out. Sound advice. If you are not already stockt up with such circulars, better get some right away. Postpaid, prices of our "Honey as Food," 24 pages, are as follows: 25 copies for 30 cents; 50 for 50 cents; or 100 for 85 cents. Send us a trial order. They will help greatly to get people interested in the use of honey.

◆

Several Convention Invitations have been sent to us lately, and we would have been delighted to have accepted them, but with a weekly bee-paper to get out, of course it is quite impossible for us to get away very often. We enjoy a bee-convention, we believe, fully as much as any one can, and really would like to attend every one held in this country, were it so we could do so.

We wish that convention secretaries would remember that we would like very much to have them always send us a condenst report of the proceedings, and especially copies of the papers read, for publishing in the Bee Journal. While we might not be able to publish all as soon as we should like, still we would do our best to get them in before the necessary delay would lessen their value or interest.

◆

The Ohio-New York-Pennsylvania Convention meets Jan. 12 and 13, 1898, at Corry, Pa. Its full name is "Northeastern Ohio, Western New York and Northwestern Pennsylvania." That's all. Why not call it the "Tri-State," and be done with it? But we ought to be able to stand it if its members can. Among the list of subjects and persons to handle them, we find these on the printed program:

Spring Management of Bees—Geo. Spitler.
Prevention of Swarming—D. W. Nichols.
Management of Swarms.—L. K. Edget.
House-Apiaries—D. A. Dewey.
Artificial Increase—C. H. Coon.
Preparing Bees for Winter—T. W. Waterhouse.
Profitable Use of Comb Foundation—L. F. Freeman.
Value of the Bees to the Blossoms—W. C. Inman.
Best Method of Working Bees for Profit—R. D. Reynolds.
The Progress of Bee-Keeping—N. T. Phelps.

Pretty good list of topics. For any further particulars desired, address the *jolliest* bee-convention secretary in the world—Mr. Ed Jolley, Franklin, Pa.

◆

"**Burning Over an Apiary** to get rid of the grass is something that is practiced by 'Skylark,' a bee-keeper of California. He accidently set fire to the tall grass in an apiary, and was astonisht to see that bees would not leave their homes even tho the sides or ends were burned out of some of the hives. He took a hint from this and burned over his apiary at night when there was no wind, and before the grass became too dry, taking care not to allow the fire to come too near the hives. All this he tells in the American Bee-Keeper. This plan may answer for California, but in Michigan the honey harvest is over by the time that the grass is dry enough to burn, and, besides, we don't wish the grass to grow uncut all the forepart of the season when we are busy in the yard. The lawn-mower is the thing for us. I knew that bees would not leave their hives when the atmosphere is filled with smoke. I remember, years ago, when the forest fires raged so terribly in the northern part of the State, and the wind, for a day or two, swept the smoke down here in such quantities that we could scarcely see or breathe, not a bee left the hives until the smoke cleared away."—Review.

◆

Honey as a Food—Not as a Relish.—Mr. E. E. Hasty admits in the Review that he has not the same keen relish for honey that he had even 20 years ago, but, on the other hand, he says:

> "I find my inclination to eat a large quantity at a time *increasing*—often eat a half section at once, not as a relish for anything, but just as one would eat a plate of doughnuts he might come upon in the pantry. The idea prevails that it

is not good form to eat honey at table, except about as much as one might politely eat of butter. This pestilent idea rules with such an iron scepter that few of us would dare to break over at a friend's table—certainly not I. Where is the table in this whole land at which honey is regarded as a thing to be sailed into for all one's appetite calls for, like bread or potatoes? I somewhat suspect that it ought to rank with bread and potato. Bee-keepers themselves bolster up the homeopathic style of eating by preferring to offer honey for sale in very small amounts or packages, and by the inflated prices put upon these little morsels. It is as if butter were generally offered for sale in one-ounce rolls, at 5 cents a roll. Let's think of the matter, whether we cannot by an all-together effort set honey where butter used to stand in ancient times (see Judges 5:25), as a food to be eaten freely and alone."

It's a good thing to *talk* honey, as well as to eat it. But you'll find that the "eat" will quite naturally follow the "talk"—on the part of the other fellow. If bee-keepers would constantly carry a few copies of the pamphlet, "Honey as Food," and hand it to their friends or acquaintances, or even strangers, we think they would be surprised at the interest it will create in honey, and how soon its readers will want some. We know whereof we speak, for we have tried, and are trying, that pamphlet right here in Chicago. It does the work.

The Weekly Budget.

Hon. Eugene Secor, the General Manager of the United States Bee-Keepers' Union, attended the annual meeting of the Iowa State Horticultural Society last week. Mr. Secor is a very busy man—the kind that accomplishes something.

Mr. R. H. Jones, of St. Louis Co., Mo., wrote us as follows, Dec. 10:

"I would not be without the American Bee Journal if I had to forego enough dinners to pay for the subscription."

Prof. A. J. Cook, wrote us, Dec. 7, that the California State Bee-Keepers' Association is to meet in Los Angeles Jan. 10, 1898. It is expected that Mr. Thos. Wm. Cowan, editor of the British Bee Journal, will be present. That will be a grand meeting. Californians should turn out and give our illustrious English friend a royal reception.

Mr. F. L. Wright, of Livingston Co., Mich., was called upon to pass through a severe affliction the past fall. His little daughter (his only one) was burned to death while alone. It was supposed her clothing caught fire from the kitchen stove as she was passing it. Mr. Wright says of her: "Her short life was all sunshine—not a cloud ever seemed to mar her pleasure." It is hard to give up the little ones, but how blessed it is that we mourn not as those who have no hope of an eternal meeting again, some sweet day.

Mr. N. E. France, State Inspector of Apiaries for Wisconsin, living in Grant county, wrote us Dec. 3:

"This morning, at 3:40 o'clock, one of the powder mills (one-fourth mile away) exploded, containing a little over 10,000 pounds of powder. Fortunately no one was hurt, tho several buildings were wreckt. Our loss was very light. The jar was felt many miles. One friend of mine, and bee-keeper, E. M. Johnson, nearly 90 miles away, wrote me he felt the jar, and report."

The Russell Co. Bee-Keepers' Association, of Ontario, Canada, has been giving its members the American Bee Journal as a premium, and when renewing the subscriptions for 1898, recently, the Secretary, Mr. G. G. Shirreff, says this:

"The American Bee Journal is very popular with the members of our Association."

We are pleased to hear this, and would suggest that it be a good thing if all bee-keepers, associations would do as does the above and several others across our northern border-line. We shall continue to do our best to make the American Bee Journal more popular than ever, as the months and years come on. It is a great encouragement to us to know that our efforts are being appreciated.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Bees Packt in Flax Straw.

I packt my bees in flax straw. Is it all right? I had no outside cases, and put the straw over them, all but the front. The bees are on the summer stands. Indiana.

Answer.—If not packt too solid, and if kept dry, flax straw will probably be all right.

Bees Prepared for Winter.

I took my bees from the summer stands Nov. 10. I laid boards on the ground, and set the bees on them, all in a row, facing southeast, and covered the hives with excelsior. I put a box over all, then put some felt cloth that had two or three coats of asphalt on it, on top of the box. The honey in each hive will average from 40 to 60 pounds. They are 10-frame hives. What is your opinion of the way I have my bees prepared for winter? Illinois.

Answer.—You say nothing about the entrances. If they are all covered up, of course it won't do at all. There must be free entrance and plenty of room for what air is needed. And it might not be amiss to put a board up before the entrance so the sun cannot shine in and entice the bees out to fall upon the soft snow. Aside from this, your arrangement seems to be such as will keep dry and warm, and so ought to be all right.

Queen Dead on Alighting-Board.

On Dec. 5 I noticed on the alighting-board of one of my hives a queen that was dead. She must have just been dragged out of the hive, and as it was very cold, I suppose the bees could get no further with her. She had only one wing (which I know I never removed) and was very dark in color. I know this queen to be four years old. Will not the colony go to destruction, if the queen has not been superseded some time ago, or in warm weather? It is too cold here at present to open the hive to see what is going on, but if I find upon examination they have no queen, do you think I could wait until early spring, procure a queen, and introduce her. The colony is strong. Cincinnati.

Answer.—Like as not the colony has a queen all right. In any case, the best thing is to let them alone till spring, and as they are strong they will be worth supplying with a queen should they prove to be queenless. Don't bet; it isn't right to bet; but if the law compels you to bet on those bees, you bet they're all right.

Hive Ventilation in Summer—Untested Queens.

1. Would it be to any advantage in the hot season to have about three one-inch holes in the rear end of the hive, and about three inches down from the top of the frames, and wire-cloth tackt over the holes on the inside, thus giving the bees a current of air?

2. Are untested queens fertilized or mated before sending away? Iowa.

Answers.—1. It wouldn't be any advantage for any length of time, for the bees would soon cover the wire-cloth with glue. But there would probably be no need of the wire-cloth, for if those holes were not opened till the really hot weather came at the time of putting on supers, the bees would already be so accustomed to the front entrance that they would never use these holes as entrances. At any rate my bees never used as entrances the space I formerly left them at the back end between the hive and the super. There can hardly be any question about the advantage of giving abundant ventilation during the storing season, the only question being as to the best way or the best place for it. No doubt your plan will be good, but perhaps it may do just as much good to have the hive raised so as to let air come in without let or hindrance all around the bottom. When working for extracted honey it is an excellent plan to set the super or second story far enough forward to allow a passage at the back end between the two stories. This passage may be a quarter of an inch or more, and of course the whole width of the hive. This plan has the objection when working for comb honey that the bees are very slow to seal up the sections that come next this opening.

2. Untested queens are queens that have already commenced to lay, but the sender does not yet know what their progeny will be, as he has not waited the three weeks to see them.

A Fair Average Honey Crop.

What would be a fair average crop of honey? Take, for example, an apiary of 200 or 300 colonies, located in this State, and properly cared for; and let the figures indicate comb honey. If you are not acquainted down here in the neighborhood of Peoria, an answer based on the conditions where you are will be equally acceptable; but if there is probably a difference between the northern and central part of Illinois, I would thank you to mention that also. Of course, I appreciate that such an answer can be but an approximation, but I will be obliged if you will give me an idea.

FIGURES.

ANSWER.—Seasons in the northern part of the State differ from those of the center, yet in the long run perhaps there isn't much difference. That is, it may this year be better in the north than in the center, while the reverse may be the case next year. Take an apiary of two or three hundred colonies, in either place, and taking one year with another a fair average crop of comb honey would probably be perhaps 20 pounds less than nothing. That is, you would have to feed each colony 20 pounds of honey to get them through the winter, aside from what they gathered for themselves. Bring the number of colonies in an apiary down to 75 or 100, and you might count on an average crop of perhaps 35 pounds. In California and Australia it may be possible to keep profitably 200, 300, or even 600 colonies in one apiary, but such a thing can hardly be done in Illinois.

Placing Bees Near Neighbors — Cutting Out Queen-Cells to Prevent Swarming.

1. How near to my neighbor's boundary line, also to the public road, can I keep my bees, by the law of Illinois? and where can I find such laws? I have one very particular neighbor. Can I follow my own bees, on his land, and hive them there?

2. If I am very particular, and keep all my queen-cells cut out, will not that prevent swarming! SUBSCRIBER.

ANSWERS.—1. A lawyer or justice of the peace ought to be able to show you the law. I think there is nothing in the law to prevent your placing your bees anywhere you please without reference to boundary line or highway, only it will be wise for you to be a law unto yourself, for if you put them uncomfortably near to a neighbor's dwelling or to a public highway you will be responsible for any damage that may result from them. You can, however, put them safely close to a highway by having a close hedge or high fence between the bees and the road.

2. Many and many a one has thought of that and tried it, but generally gave it up after trial. Sometimes bees will swarm without a sign of a queen-cell, and sometimes a queen-cell will be right on the middle of a comb projecting so little above the surface that the most careful observer could hardly be blamed for missing it. Still you might succeed in some cases.

Is There a Right and Wrong Way to Hang Foundation in Frames?

Mr. Dadant said in a late number of the American Bee Journal that there is a right and wrong way of putting in foundation. Nearly all the foundation I have bought, the sheets were cut so that the cells were with two of the cell-walls perpendicular, and the other four diagonal when the sheet was fastened in the frame. I have several times noticed that when left entirely to themselves bees build their combs so that the cells have two of the cell-walls horizontal and the other four diagonal. Accordingly, I take it that the latter way is the correct one.

Now when starters are used in brood-frames, according to the former, and the bees are started off in that way, will the combs which they build after they get beyond or below the strip of foundation ever sag so as to allow drones to be reared in them? OHIO.

ANSWER.—In actual practice it makes little difference how the cells are placed. Hang a full sheet of foundation in a brood-frame without any wiring or other support, and you are likely to find the upper portion of it made into drone-cells, no matter which way it runs. If properly supported, or if only a narrow starter is used, the bees will not stop to inquire how it is hung, but will draw it out in worker-cells.

Distance Apart to Place Hives.

What distance from each other would you consider bee-hives should be put to insure perfect safety of the queens in mating. My apiary is protected on the north and west by a wall, and the ground slants to the south. My hives face the south. I have them 7½ feet one way, and 14 feet the other way. Do you think I could have them closer together, and not lose queens in the virgin flight?

NORTH CAROLINA.

ANSWER.—As to the safety of young queens, or bees getting into the right hives, it isn't altogether a matter of distance. If you put a hundred hives in a straight row on a naked prairie, there will be some trouble even with hives 10 feet or more apart. I have had many cases in which entrances were not six inches apart, and never knew any loss to occur from their being so close. The position of hives, the direction they face, and especially surrounding objects, have perhaps more to do in the case than distance. My hives are set in pairs. Nos. 1 and 2 are placed just as close together as they can stand without touching. Then between No. 2 and No. 3 there is a space of perhaps 3 feet, and No. 3 and No. 4 form the second pair, and so on. A bee that belongs to the north hive of a pair is not so likely to go to the south hive of the same pair as she is to go to the north hive of the next pair. Trees and other objects help to locate the right pair. The wall, and probably other objects, and the distance the hives are apart, make it very improbable that your young queens will have trouble finding the right hives.

Hive Dimensions and Entrances—Painted or Unpainted Hives.

1. Wishing to make my own hives, please give exact inside dimensions of the hive-body for 10 Hoffman frames.

2. I prefer to make the entrance by cutting it in the hive. What size entrance should I have? Would a 10-inch entrance be large enough? I have been making the rabbet for the frames to hang on, by nailing a thin strip of wood at each end of the hives.

3. Which is the best for bees, rough hives, or drest and painted ones? LOUISIANA.

ANSWERS.—1. I have just measured a dovetailed hive made for eight Hoffman frames, and it is inside measure 18⅜ inches long, 12⅛ wide and 9⅝ deep. As the frames are spaced 1⅜ inches from center to center, that would make it 2¾ inches wider for 10 frames, or 14⅞ wide.

2. By all means have the entrance full width of hive. After having used some 400 hives with entrances cut in the hives, I am now having all my new hives made without any entrance cut in them, and like them very much better. Probably all the hives now sent out from factories of the ordinary kind are made without entrances in the hives. Still, if you prefer to have them so, it is an easy matter to make them so.

3. Probably most of the hives made are drest and painted. Perhaps a very few may like them rough. Some of the best authorities on both sides of the ocean say it is better for the bees that the hive should be left without paint. They say such a hive dries out quicker than a painted one. Very likely in the long run you will find a drest hive without paint will give you good satisfaction. Perhaps paint on a hive is more a fashion than anything else.

☞ See "Bee-Keeper's Guide" offer on page 813.

BEE-BOOKS

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Bees and Honey, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages, and 245 illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold-lettered. Price, $1.00.

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Rational Bee-Keeping, by Dr. John Dzierzon—This is a translation of his latest German book on bee-culture. It has 350 pages; bound in paper covers, $1.00

Bienen-Kultur, by Thomas G. Newman.—This is a German translation of the principal portion of the book called BEES OF HONEY. 10[illegible] page pamphlet. Price, 40 cents.

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Thirty Years Among the Bees, by Henry Alley.—Gives the results of over a quarter-century's experience in rearing queen-bees. Very latest work of the kind. Nearly 100 pages. Price, 50c.

Practical Hints to Bee-Kee-Keepers—by CHAS. F. MUTH. Also contains a Foul Brood Cure and How to Winter Bees. 40 p.; 10 cts.

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Apiary Register, by Thos. G. Newman.—Devotes two pages to a colony. Leather binding. Price, for 50 colonies, $1.00; for 100 colonies, $1.25.

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Winter Problem in Bee-Keeping, by G. R. Pierce. Result of 25 years' experience. 30 cts.

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Foul Brood Treatment, by Prof. F. R. Cheshire.—Its Cause and Prevention. Price, 10 cts

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Our Poultry Doctor, or Health in the Poultry Yard and How to Cure Sick Fowls, by Fanny Field.—Everything about Poultry Diseases and their Cure. 64 pages. Price, 30 cts.

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Rural Life.—Bees, Poultry, Fruits, Vegetables, and Household Matters. 100 pages. 25 cts.

Potato Culture, by T. B. Terry.—It tells how to grow them profitably. Price, 40 cts.

Hand-Book of Health, by Dr. Foote.—Hints about eating, drinking, etc. Price, 25 cts.

Bee-Keepers' Directory, by H. Alley.—Latest methods in Queen-Rearing, etc. Price, 50c.

Book Clubbing Offers.

(Read Carefully.)

The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only ONE book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted, see postpaid prices given with the description of the books on this page Following is the clubbing-list:

1.	Langstroth on the Honey-Bee	$2.00
2.	A B C of Bee-Culture	2.00
3.	Bee-Keeper's Guide	1.75
4.	Bees and Honey [Cloth bound]	1.65
5.	Doolittle's Scientific Queen-Rearing	1.75
6.	Dr. Howard's Foul Brood Book	1.10
7.	Advanced Bee-Culture	1.30
9.	Bienen-Kultur [German]	1.20
11.	Rational Bee-Keeping [Paper bound]	1.75
12.	Thirty Years Among the Bees	1.30
13.	Bee-Keeping for Profit	1.15
14.	Convention Hand-Book	1.15
15.	Poultry for Market and Profit	1.10
16.	Turkeys for Market and Profit	1.10
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34.	Maple Sugar and the Sugar Bush	1.20
35.	Silo and Silage	1.10
36.	Winter Problem in Bee-Keeping	1.30
37.	Apiary Register (for 50 colonies)	1.75
38.	Apiary Register (for 100 colonies)	2.00
39.	Bee-Keepers' Directory	1.30

General Items.

A California Report.

From 120 colonies of bees this year I got nine tons of extracted honey, and one ton of comb honey. H. C. WHEELER.

Riverside Co., Calif., Nov. 30.

Sells Honey—Report.

I sell a great deal of honey, both comb and extracted. I secured 1,000 pounds of the finest of extracted honey from 6 colonies last year. S. S. FETHEROLF.

Pickaway Co., Ohio.

An 1897 Report.

I began last spring with 23 colonies, 8 being queenless, increast to 36, reared and tested queens, and requeened them all, and produced 1,035 pounds of extracted honey, and 992 well filled sections of comb honey. I have sold nearly all of it in the home market. My bees were never in better condition for winter than now.

N. L. WEBB.

Fannin Co., Tex., Dec. 11.

Reading the Bee Journal Over Again.

The American Bee Journal is like company, these cold, drizzly days, when bee-keepers like me prefer to sit in the house and read over the back numbers. I find many things that are of real value, that I had skipt or forgotten. As I am busy in the summer it happens I don't take time to read all the articles, and these stormy days are just the time to look up and read them over. I especially like the way the editor comes down on honey sharks and swindlers. By the way, they must be scarce now, at least I have not received any of their circulars this year, which I give the Bee Journal credit for. It helpt to keep drumming away. G. E. NELSON.

Henry Co., Ill., Dec. 8.

Report for 1897.

My bees have done well this year. I started in the spring with 8 colonies, increast to 22, and secured 900 pounds of honey in one-pound sections, and 300 pounds of extracted. I sold the extracted for 12½ cents per pound, and my comb honey at 15 cents for second grade, and 20 cents for first grade. My best colony stored 125 pounds of section honey. All are in fine condition for winter, and we are looking forward with great hopes for another good year in 1898. Bees were coming in with pollen from weeds Nov. 27, and are flying out finely to-day. L. COWELL.

Tarrant Co., Tex., Dec. 7.

Wanted—A Thousand Like This!

The year is drawing to a close. Christmas is near, and I have not yet paid my subscription to the American Bee Journal for the current year. As one vote sometimes decides the contest for office, so may one dollar decide the editor's chance for regaling on roast turkey at Christmas. Therefore, I take from my pocket a dollar allotted for holiday festivities, and send as payment for the weekly feast which has been spread out in the American Bee Journal during the past year, and to enable Editor York & Co. to partake of the usual holiday feast.

The "Co." we suppose may mean wife, and we are sorry that it does not include the little bud of promise, developing into flower, which was recently anticipated by fond parents, and would have given more joy than all other feasting, had not the cruel hand of Fate snatcht away the tender bud.

And, oh! how saddened must be the holi-

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day festivities to Editor Hutchinson, of the Bee-Keepers' Review, because the same cruel hand deprived him of his heart's joy in little Fern, through such melancholy means. Truly, we can realize the sentiment of the poet in these lines:

'Tis ever thus our fondest hopes decay,
I never loved a tree or flower but 'twas the
first to pass away.

As every great sorrow has a shadow of joy, possibly the great remorse and grief of poor Mrs. H., when she fully realized what she had done, gave way in tears and sobs that intensified nerve energy and accelerated forceful blood circulation to the relieving of congested capillaries of the brain, so as to bring about previous normal sane conditions of mind. Let us hope.

And now I wish the two editors—H. and Y.—all possible holiday enjoyments, and extend the season's compliments to all others, and wish all a complement of good things. J. L. SEXTON.

Sheboygan Co., Wis., Dec. 6.

[Thank you, Mr. Sexton. We would like to hear from about 1,000 just like you, before Jan. 1.—EDITOR.]

Starting in Bee-Keeping, Etc.

I want to thank Editor York for his reply to John A. Pease, of California, on page 728, as he may neglect to do so. I also wish to thank Dr. Miller and Charles Dadant for the change I see in their writings, wherein they have concluded to say in answer to the question, "How many colonies of bees shall I commence bee-keeping with?"—Well, that depends upon your pocket-book. The old answer was, "Begin with one or two colonies, and work your way up. Of course, you cannot expect to reach the hight to which I have attained, but I do not object to your trying."

Mr. Editor, I am an old man, and I know that the boys of the present day will "get there," even if they start with enough bees to make them take a great interest in the business right from the start.

I hope the American Bee Journal may start the New Year with a full colony of subscribers, and that they may never desert the hive. WM. H. EAGERTY.

Republic Co., Kan., Nov. 27.

[Thank you, Mr. Eagerty, for your hopeful wish for the American Bee Journal. We are trying to do our part toward furnishing a rousing big "colony" with plenty of good, wholesome "stores."—EDITOR.]

The Buffalo Convention Report, Etc.

It seems as if the United States Bee-Keepers' Union has been very unfortunate in the matter of getting its proceedings properly reported. The report of the Lincoln meeting was unintelligible in places, because of the stenographer's ignorance of apiarian terms, and now the report of the Buffalo meeting is coming to us in an emasculated form because no stenographer could be obtained. Dr. Mason tells us that we are going to have the report with the discussions left out. This is like feeding us on mush and milk when we are all expecting and all hungry for a square meal.

When I read in the first installment of this emasculated report that "after a recess of ten minutes Capt. J. E. Hetherington was called out, and in a very instructive and entertaining talk delighted the convention," there was an "all gone" feeling at the pit of my stomach, which only a full and accurate report of this "talk" can revive. And only to think of the other "talks" by other men away up in apiarian lore and experience, which we are not to have, because some stenographer did not get around according to contract! Will somebody please knock that stenographer on the head? And then will some bee-keeper please educate, or cause to be educated, one of his boys, or better, perhaps, one of his girls, to be a stenographer and

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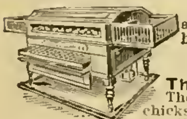

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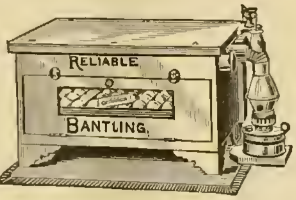

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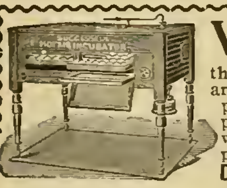

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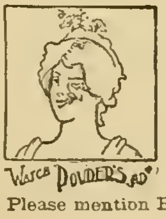
About 90 Colonies of Italians. Any one wanting to start an apiary cannot do oetter than to call on Dr. E. Gallup, Santa Ana. Calif., and examine the Bees before purchasing elsewhere. Double sets of Combs in Langstroth-Simplicity Hives, and warranted a superior lot of Bees for business. Correspodence solicited. **Dr. E. GALLUP,**
SANTA ANA, Orange Co., CAL.



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Pouder's Honey-Jars, and every thing used by bee-keepers. Prompt service, low freight rate. Catalog free. Walter S. Pouder,
162 Mass. Ave.,
INDIANAPOLIS, INDIANA.

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report the proceedings of bee-conventions? She could earn pin money and more, too, in this way, and bee-keepers might be able to get a full report of proceedings in language that they could understand.

I read in Farm and Fireside that F. Greiner was at the Buffalo meeting, and that he happened in at a time when there was some talk going on that he did not care to hear. Perhaps I had better refrain from repeating his comments on what he heard. It is fortunate that the episode which gave occasion for the talk referred to is ended.

On page 675 Editor York, or his devil, or somebody else at 118 Michigan street, made me say that I had "razed" some of my hives having entrances cut in the hive-bodies. What I did say, or intended to say, was that I had *razeed* some of these hives. As the folks at 118 Michigan street have to mend a good deal more of my manuscript than they mangle, I have not much to say in the way of complaint.

Enclosed find one dollar to make me a member of the United States-Bee-Keepers' Union, and may it help to make some honey adulterator feel as if he had rather be sitting on a hot gridiron.

Decatur Co., Iowa. EDWIN BEVINS.

* * *

Bees and Poultry.

I commenced last spring with 57 colonies, had 105 swarms, and 4,520 pounds of honey. Bees went into winter quarters in the best condition they ever have since I have been in the bee-business. Fancy poultry goes with bees complete. I have a fine lot of over 200 chickens not sold; they are beauties — barred and white Plymouth Rocks and S. L. Wyandottes. My poultry took first premiums at our county fair over quite a lot of competitors.

MRS. A. A. SIMPSON.
Greene Co., Pa., Dec. 11.

* * *

Good Season with the Bees.

I am very much pleased with the Bee Journal, and would not get along without it for three times the price. I had a good season with my bees this year, but did not get much honey. GEO. H. PORTER.
Hamilton Co., N. Y.

Convention Notices.

Michigan.—The Michigan Bee-Keeper's Association will hold its annual convention Dec. 31 and Jan. 1, in the parlors of the Donovan House, in Mt Pleasant, Mich. Reduced rates at the hotel, and probably on the railroads. A cordial invitation extended to all.

Flint, Mich. W. Z. HUTCHINSON, Sec.

Ohio-New York-Pennsylvania.—The Northeastern Ohio, Western New York, and Northwestern Pennsylvania Bee-Keepers' Association will hold their annual convention at Corry, Pa., Jan. 12 and 13, 1898. An interesting program has been arranged. All are invited. ED JOLLY, Sec.
Franklin, Pa.

California.—The annual meeting of the California State Bee-Keepers' Association will be held on Monday, Jan 10, 1898, commencing at 2 p.m. The California Bee-Keepers' Exchange will hold its annual session on Tuesday, Jan. 11 at 2 p.m. A full attendance of members is desired. Mr. Cowan, editor of the British Bee Journal, will be in attendance. Thos. G. Newman will also attend, health permitting. PROF. A. J. COOK, Pres
J. H. MARTIN, Sec., Los Angeles, Calif.

* * *

Bee-Keepers' Photograph.—We have now on hand a limited number of excellent photographs of prominent bee-keepers—a number of pictures on one card. The likeness of 49 of them are shown on one of the photographs, and 121 on the other. We will send them, postpaid, for 30 cts. a card, mailing from the 121 kind first; then after they are all gone, we will send the 49 kind. So those who order first will get the most "faces" for their money. Send orders to the Bee Journal office.

Cash PAID FOR Beeswax

For all the **Good, Pure Yellow Beeswax** delivered to our office till further notice, we will pay 25 cents per pound, CASH ; or 28 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash, promptly,** for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,

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Write for Catalogs. Quotations, etc.

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Working Wax into Foundation for CASH A Specialty,

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My Foundation will SPEAK FOR ITSELF, and prices are O. K. So do not fail to write for a Catalog with prices and samples.

Beeswax taken in Exchange for Foundation or any other Supplies.

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What's Free?

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Providing 2c for postage is inclosed.

Tells all about my new hive, and system of management, particularly how to produce comb honey that will bring from 2 to 4c more than honey produced in the old way. Address

F. Danzenbaker, Washington, D. C.

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A Special Booklet Bargain!

For a limited time we wish to make our readers a **special offer** on booklets on Bees, Poultry, Health, etc. Upon receipt of **75 cents** we will mail any **6** of the list below: and **for $1.25** we will mail the **whole dozen**:

1.	Foul Brood, by Dr. Howard	25c
2.	Poultry for Market and Profit	25c
3.	Turkeys for Market and Profit	25c
4.	Our Poultry Doctor	30c
5.	Capons and Caponizing	30c
6.	Hand-Book of Health, by Dr. Foote	25c
7.	Kendall's Horse-Book	25c
8.	Rural Life	25c
9.	Ropp's Commercial Calculator	25c
10.	Foul Brood, by Kohnke	10c
11.	Silo and Silage, by Prof Cook	25c
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Practical Hints" will be mailed for 10c in stamps. Apply to—

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We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
Alsike Clover	.70	$1.25	$3.00	$5.75
Sweet Clover (white)	.60	1.00	2.25	4.00
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Alfalfa Clover	.60	1.00	2.25	4.00
Crimson Clover	.55	.90	2.00	3.50

Prices subject to market changes.

Add 25 cents to your order, for cartage. wanted by freight.

Your orders are solicited.

GEORGE W. YORK & Co.
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That covers the whole Apicultural Field more completely than any other published, send $1.25 to Prof. A. J. Cook, Claremont, Calif., for his

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Liberal Discounts to the Trade.

PATENT WIRED COMB FOUNDATION

Has No Sag in Brood-Frames

Thin Flat-Bottom Foundation

Has No Fishbone in the Surplus Honey.

Being the cleanest is usually worked the quickest of any Foundation made

J. A. VAN DEUSEN.
Sole Manufacturer,
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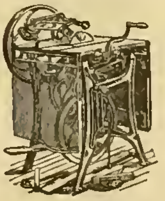

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46 Water St SENECA FALLS, N. Y.

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J. M. Jenkins, Wetumpka, Ala.

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We have made arrangements whereby we can furnish our readers with the best of reading at a very large reduction, the only condition is that all arrearages to the Bee Journal be paid.

The American Bee Journal one year and any one of the following magazines or newspapers, both for $1.90; the American Bee Journal and any two for $2.80:

Cosmopolitan
McClure's
Peterson's
Delineator
Household
Am. Kitchen Mag.
Cream
N. Y. Tribune
Detroit Free Press
Nat'l Stockman
Poultry Monthly
Inter-Ocean
Munsey's
Puritan
Argosy
Demorest's
Godey's
Leisure Hours
Ohio Farmer
N. Y. World
Rural New Yorker
Farm Poultry
Family Herald and Weekly Star
Harper's Round Table

The following choice reading, the regular price of which is $4.50, we will furnish one year for $3.25:

American Bee Journal.
Godey's Magazine—a leading ladies' magazine and fashion monthly of the United States.
Farm Poultry—a semi-monthly and one of the very best poultry papers pub'isht.
Leisure Hours—a charming story magazine.
Everywhere — Will Carleton's newspaper magazine.

The regular price of this combination is $3.50; our price is $2.50 for the lot:

American Bee Journal.
American Kitchen Magazine.
New York Tribune.
Home Magazine, of Washington.

Your choice of ONE of the following list we can furnish for only $3.60, which includes a year's subscription to the American Bee Journal:

New England Magazine.
Frank Leslie's Popular Monthly.
Scribner's Monthly.
Scientific American.
St. Nicholas.

Remember that of this last lot you get only ONE of them and a year's subscription to the Bee Journal.

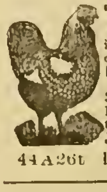
Christmas and New Year's at Home.

In order that the public may have an opportunity of spending Christmas and New Year's at home, the Nickel Plate road will sell tickets to any point on their line at a fare and one-third for the round trip, tickets to be on sale Dec. 24th, 25th, 31st, and Jan. 1st, 1898. Good returning up to and including Jan. 4th.

Students by presenting the proper credentials can obtain tickets at same rate, good to return until Jan. 11th, 1898.

For full information call on or address J. Y. CALAHAN, Gen'l. Agent, 111 Adams St., Chicago, Ill.

36 H. THORNE, C. P. & T. A.



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is easily settled by the poultry question. You can settle the poultry question by reference to our **Mammoth Annual Poultry Guide**

Contains 100 pages printed in finest colors, 30 varieties of poultry and how to treat them in health and disease and how to make money with them. Poultry house plans, recipes; postpaid 15c.

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THROAT AND LUNG DISEASES,
DR. PEIRO, Specialist
Offices: 1019, 100 State St.,
CHICAGO. Hours 9 to 4.

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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Dec. 13.—Fancy white 11 to 12c. No. 1, 10c.; fancy amber, 8 to 9c.; No. 1, 7c.; fancy dark. 7c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 4c. Beeswax, 26 to 27c.

The demand for comb honey is not satisfactory, and it can be bought at even lower prices than quoted, where it is not in the hands of regular dealers. There seems to be no outside demand. Extracted without special change. Beeswax is scarce.

Milwaukee, Wis., Dec. 13.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 9 to 10c.; fancy dark, 8 to 9c. Extracted, white, 5½ to 6c.; amber. 4½ to 5c. Beeswax, 25 to 27c.

This market has been fairly sustained on honey since our last report. Values remain about the same, as there has been a very good consumptive demand, especially for extracted, while the comb honey has seemed to accumulate with increast receipts, and we feel to meet the demand even if at a reduction from quotations. There seems to be more demand from those who eat honey than in former seasons, which is a good feature of the trade which we desire to encourage. We are expecting a good trade from this forward.

Cleveland, Ohio, Dec. 15.—Fancy white. 12 to 12½c.: No. 1, 11 to 12c.; No. 1 amber, 9 to 10c. Extracted. white, 6 to 7c.; amber. 4 to 5c. Beeswax, 22 to 25c.

New York, N. Y., Dec. 13.—Fancy white, 11 to 11½c.; No. 1, 10c.; fancy amber, 9c.; fancy dark, 7 to 7½c. Extracted, white, 5 to 5½c.; amber, 4 to 4¾c.; dark, 4c. Beeswax, 26 to 27c.

Our market remains quiet and honey is moving off rather slowly. Stocks are plentiful and prices are on the downward tendency. In order to move quantity lots quotations will have to be shaded. Beeswax is in good demand at quotation price.

Minneapolis, Minn., Dec. 15. — Fancy white, 11 to 12c.; No. 1, 10 to 11c.; fancy amber, 10c.; No. 1, 9½c.; fancy dark 9 to 9½c.; No. 1, 8 to 9c. Extracted, white, 5 to 6c.: amber. 4 to 4¾c.: dark, 4c. Beeswax, 23c.

Market holds firm at above prices. Good demand for extracted. Wax is quiet but firm at 23c.

Kansas City, Mo., Dec. 15.—Fancy white, 10½ to 11c.; No. 1. 10 to 10½c.; fancy amber, 9½ to 10c.; No. 1 9 to 9½c.; fancy dark. 8½ to 9c. Extracted, white, 5½ to 6c.: amber, 5 to 5½c.: dark, 4 to 4½c. Beeswax, 20 to 22c.

St. Louis, Mo., Dec. 13.—Fancy white, 12 to 12 1-2c.; No. 1. 10 1-2 to 11 1-2c.; fancy amber, 9 1-2 to 10c.; No. 1, 9c ; fancy dark, 8c. Extracted, white, 5 to 5 1-2c.: amber. 4 to 4½c.; dark, 3 1-2 to 4c. Beeswax, 24 1-2 to 25c.

We would advise prompt shipments of honey. We do not see any probabilities of better prices. The stock of honey is ample for the demand.

Albany, N. Y., Dec. 13.—Fancy white. 12 to 13c.; No. 1, 11 to 12c.; fancy amber. 8 to 9c.; No. 1, 8c ; fancy dark. 8c.; No. 1, 7½ to 8c. Extracted. white, 5 to 6c.; amber, 4½ to 5c.; dark, 4 to 4½c.

There is an ample stock of comb on hand and selling freely at quotations. Extracted is not plentiful and from information received there is not much in the hands of producers.

Buffalo, N. Y., Dec. 15.—Our honey market is very quiet, except for absolutely fancy 1-pound combs. white, which is selling well at mostly 12c., occasionally, 11c. All other grades are exceedingly dull and must be pusht hard and cut severely to move; in this manner some quantities can be sold. Dark comb. 9 to 7c.; very poor grades, 5 to 6c. Extracted, fancy white, 5 to 6c.: dark, 4 to 4½c.

San Francisco, Calif., Dec. 8. — White comb, 1-lbs., 7½ to 9½c.; amber, 4 to 6c. Extracted. white, 4½ to 4¾c.; light amber. 3½ to 3¾c.; dark tule, 1¾ to 2¼c. Beeswax, fair to choice, 22 to 24c.

There is no selling pressure of consequence on desirable lots of water white, either comb or extracted, such being held as a rule at full quotations. Amber grades are in greater supply than the demand and market for this class presents an easy tone. Dark qualities are in poor request, despite low asking figures. Beeswax is firm at current quotations, with very little offering, either from first or second hands.

Philadelphia, Pa., Nov. 13.—Fancy white, 13 to 14c.; No. 1. 12c.; fancy amber, 10c.; No. 1. 9c.; No. 1 dark. 8c. Extracted, white, 5 to 5½c.; amber, 5c.; dark, 4 to 4½c. Beeswax, 27c.

Honey is arriving very freely; market is a little off. Beeswax is in good demand.

Boston, Mass., Nov. 8.—Fancy white, in cartons. 13c.; No. 1, 11 to 12c.; fancy amber. 10c. Extracted. white, 6 to 7c.; amber, 5 to 5½c. Beeswax, 28c.

No. 1 and fancy honey has sold well during the past 10 days, but off grades and light weight is going slowly. Beeswax is in good demand and but little here.

Detroit, Mich., Nov. 9.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.: fancy amber, 9 to 10c.; No. 1, 8 to 9c.: fancy dark, 7 to 8c. Extracted, white, 5 to 6c.; amber, 4 to 5c. Beeswax, 25 to 26c.

Indianapolis, Ind., Nov. 8.—Fancy white, 11 to 13c.; No 1, 9 to 10c.; fancy amber, 9 to 10c. Extracted, white, 5 to 6c. Beeswax, 25c.

Demand for fancy white comb honey and fancy white extracted is exceptionally good, while there is almost no demand for dark or amber comb or extracted honey.

Cincinnati, Ohio, Dec. 7.—Demand for comb honey has been good for the last few weeks and is fair for extracted. We quote the latter at 3 1-2 to 6c., and comb at 10 to 13c. for best white. Beeswax is in fair demand at 20 to 25c. for good to choice yellow.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEOELKEN,
120 & 122 W. Broadway.

Kansas City, Mo.
C. C. CLEMOMS & Co., 423 Walnut St.

Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St

Hamilton, Ills.
CHAS. DADANT & SON.

Cleveland, Ohio.
A. B. WILLIAMS & Co., 80 & 82 Broadway.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.
Mr. Selser handles no honey on commission

St. Louis, Mo.
WESTCOTT COM. Co., 213 Market St

Minneapolis, Minn.
S. H. HALL & Co.

Milwaukee, Wis.
A. V. BISHOP & Co.

Boston, Mass.
BLAKE, SCOTT & LEE., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT. Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. MCCULLOCH & Co., 380 Broadway.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central Avs.

YOUR BEESWAX!

UNTIL FURTHER NOTICE, we will allow 28 cents per pound for Good Yellow Beeswax, delivered at our office—in **exchange** for Subscription to the BEE JOURNAL, for Books, or anything that we offer for sale in the BEE JOURNAL. **Or, 25 cts. cash.**

GEORGE W. YORK & CO.,
CHICAGO, ILLS.

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See the premium offers on page 749!

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In Health and Disease.

By W. E Forest, M. D., 12th Edition, Revised, Illustrated, and Enlarged. This is the greatest and best work ever publisht as a HOME PHYSICIAN, and as

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It makes the way from **Weakness** to **Strength** so plain that only those who are past recovery (the very few) need to be sick, and the well who will follow its teachings **cannot be sick.** It is now in many families the only counsellor in matters of health, saving the need of calling a physician and all expenses for medicines, as it teaches Hygiene and the use of Nature's remedies, **not a drug treatment.**

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So confident are the publishers of the results, that they offer to refund the money to any one who will try "New Methods" thoroughly, if the book is returned in good condition.

The New Edition

is illustrated with a number of Anatomical plates from the best English work on Anatomy publisht, and others made expressly for this work; contains 300 pages, printed on fine calendered paper, and although the price of the first edition (much smaller in size and without illustrations) was $2.50, we sell this at $1.00, postpaid.

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For sending us two new subscribers to the Bee Journal for one year, we will mail you the book free as a premium, or we will mail it for sending your own advance renewal and one new yearly subscriber. This is a wonderful premium offer. Address all orders to—

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Queens and Queen-Rearing.—If you want to know how to have queens fertilized in upper stories while the old queen is still laying below; how you may *safely introduce* any queen, at any time of the year when bees can fly; all about the different races of bees; all about shipping queens, queen-cages, candy for queen-cages, etc.; all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know—send for Doolittle's "Scientific Queen-Rearing" — a book of over 170 pages, which is as interesting as a story. Here are some good offers of this book:

Bound in cloth, postpaid, $1.00; or clubbed with the BEE JOURNAL for one year—both for only $1.75; or given free as a premium for sending us *two* new subscribers to the BEE JOURNAL for a year at $1.00 each.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

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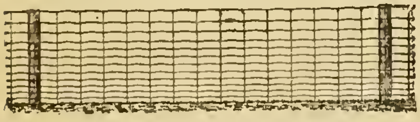

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One can't afford wakeful nights, disturbed Sabbaths, maimed stock, cross neighbors and blasted hopes, **all on account of a "cheap" fence.**

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Bee-Hives, Sections, Shipping-Cases—everything used by bee-keepers. Orders filled promptly. Send for catalog MINNESOTA BEE-KEEPERS' SUPPLY MFG. CO., Nicollet Island, Minneapolis, Minn.
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OUR SUCCESSFUL INCUBATOR will prove it if you use it. Send 6c for new 128 page catalog and study the merits of our machines. Has valuable points on artificial incubation and poultry culture generally. We manufacture a greater variety of Incubators and Brooders than any other firm. Sizes 50 to 800. Prices from $8.00 to $70.00.

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Beautiful Honey-Cases
Made by the A. I. Root Co., at their prices.
Beeswax Wanted.
M. H. HUNT, Bell Branch, Mich.
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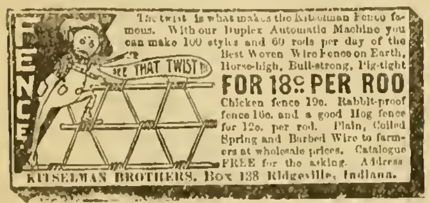

The twist is what makes the Kitselman Fence famous. With our Duplex Automatic Machine you can make 100 styles and 60 rods per day of the Best Woven Wire Fence on Earth, Horse-high, Bull-strong, Pig-tight

FOR 18c PER ROD

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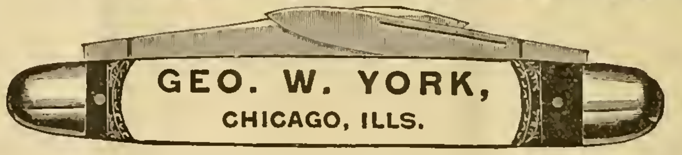
45Dtf Please mention the Bee Journal.

THE "NOVELTY" POCKET-KNIFE!



Your Name on the Knife.—When ordering, be sure to say just what Name and Address you wish put on the Knife.

The NOVELTY KNIFE is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed an AMERICAN BEE JOURNAL reminder, and on the other side, name and residence of the Subscriber.

The material entering into this celebrated knife is of the very best quality; the blades are handforged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring steel, and the finish of handle as described above. It will last a lifetime, with proper usage.

Why purchase the Novelty Knife? In case a good knife is lost, the chances are, the owner will never recover it; but if the Novelty is lost, having name and address of owner, the finder will return it; otherwise to try to destroy the name and address, would destroy the knife. If traveling, and you meet with a serious accident, and are so fortunate as to have one of the Novelties, your pocket KNIFE will serve as an identifier; and in case of death, your relatives will at once be apprised of the accident.

How appropriate this knife is for a Christmas, New Year or birthday present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, a lady to a gentleman, or vice versa, a son to a mother, a husband to a wife, a brother to a sister or a gentleman to a lady—the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

How to Get this Valuable Knife.—We send it postpaid, for $1. , or give it as a Premium to the one sending us **three new Subscribers** to the BEE JOURNAL (with $3.00), and we will also send to each new name a copy of the Premium Edition of the book "Bees and Honey." We club the Novelty Knife with the BEE JOURNAL for one year, both for $1.90.

Any Name and Address Put on the Knife.
GEORGE W. YORK & CO.,
CHICAGO, ILLS.

DADANT'S ⚜ FOUNDATION

BEESWAX WANTED.

BEE-KEEPERS' SUPPLIES OF ALL KINDS.

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The Classic in Bee-Culture—Price, $1.25, by mail.

CHAS. DADANT & SON,
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New subscribers sending us $1.00, or old subscribers who send us

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will receive a copy of the "A B C of Carp Culture," 70 pages, price 40 cents, postpaid, the pages 6¼x9¼ inches in size; or we will send, in place of the carp-book, one copy of

Winter Care of Horses and Cattle,

by T. B. Terry, a book of the same size pages as the carp-book, 44 pages; price 40 cents, postpaid; or in place of either one of the two we will send

Maple Sugar and the Sugar-Bush,

a book of the same size pages, costing also 40 cents, postpaid. Remember, in order to get one of these valuable books all you have to do is to send $1.00 for Gleanings, and 5 cents postage, and we will give you one of them free. Remember, an old subscriber, to be entitled to this offer, must pay up all back subscription, if any, and send in $1.00 for a year in advance, with 5 cents postage.

The A. I. Root Company, Medina, Ohio

AMERICAN
BEE JOURNAL
DEVOTED EXCLUSIVELY TO THE INTERESTS OF HONEY PRODUCERS

Publisht Weekly at 118 Michigan Street. *$1.00 a Year—Sample Copy Free.*

37th Year. CHICAGO, ILL., DECEMBER 30, 1897. No. 52.

UNITED STATES BEE-KEEPERS' UNION.

The General Manager's First Annual Report to the Membership.

BY HON. EUOENE SECOR.

Fellow Members:—I was appointed General Manager by the Board of Directors *in April, 1897*, without my knowledge, and much against my inclinations. I felt that a wiser and less busy man ought to control the affairs of an organization projected with a purpose so useful and aggressive. I consented reluctantly to take charge of our interests for the time being, hoping in the near future to be relieved from the additional strain, which I was sure its duties would impose.

The time since the completed organization of the Union has been so short, and the funds at my disposal so limited it has not been possible to exhibit any tangible results.

Acting under the advice of the Board of Directors I have given counsel in several cases where bee-keepers had gotten into, or were threatened with litigation, but no money has been appropriated toward defending them. Just how much good I have accomplisht in helping to settle these vexatious affairs I shall not pretend to say.

I have also interested myself in the subject of pure food legislation. There is no doubt in the mind of your General Manager that there is need of National as well as State laws for the protection of food consumers; and I think that an organization representing a thousand of the best and most intelligent people in this country, extending its influence into every Congressional District, could have, if it chose to do so, power in shaping national legislation. We owe it not only to our own industry, but to the health of our people, to compel those who deal in food products to be honest. I have been in correspondence with the special chemist of the United States Department of Agriculture in relation to the adulteration of honey. From a recent letter I quote the following:

> "I have received numerous letters from different States on this subject, and am led to believe that honey is frequently and openly adulterated. I should be pleased to have your views as to the advisability of calling a convention of the friends of pure food legislation to meet here in January or February to consider the question and to reconcile differences of opinion and unite upon a Bill and push it before Congress."

The Board of Directors is now constituted to feel the importance of this line of work. Honey cannot be produced and sold in competition with glucose syrup; and if the latter is permitted to be sold under the disguise of *pure honey* bee-keepers may better brimstone their bees than to try to sell extracted honey.

Some of the Buffalo Convention Attendants—Do you now them?

No pure food law ever was or ever will be enacted unless in answer to the demand of the people. Neither will it enforce itself when on the statute books. Somebody must look after it. It is the aim and purpose of this Association to aid in the enactment and enforcement of laws in States and Nation, protecting apiarian interests.

Another field of usefulness which this association has outlined is the bringing to justice of dishonest honey commission men. I believe the simple fact of our organization and declaration of intentions has already had a wholesome effect on this class of swindlers. We purpose, if evidence is produced showing fraudlent dealing with our members, to employ the best legal talent obtainable, and to make it so hot for all such fellows that they will want to emigrate to the Klondike or some other cool region where the stings of conscience and a bee-keepers' union are supposed to be unknown.

We have been solicited more than once to help bee-keepers out of trouble who are not members of the Union. It ought not to be necessary to say that this organization was effected "*to protect the interests of its members ; to defend them in their lawful rights.*" While we intend to protect the *industry* of bee-keeping, and promote its interests in every way possible, no one can reasonably expect personal aid who does not affiliate himself with the Union. Let us learn a lesson from similar industrial organizations, the dairy associations for instance. Let us put aside jealousies and bickerings and unite in *one* powerful organization and march to victory.

* * * * * * *

FINANCIAL STATEMENT.

Amount received from Secretary Dr. A. B. Mason...	$180 09
Amount received from members direct & other sources	23 00
Total receipts to Dec. 10, 1897..............	$203 09
Paid for letter heads, postage, postal cards, envelopes, and printing annual report and other blanks..............................	$ 21 00
Balance on hand..........................	182 09
	$203 09

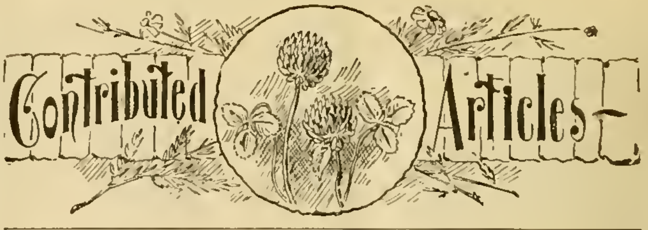
It may be thought by some that the net balance from about 250 paying members is quite small. It should be borne in mind, however, that the necessary expenses growing out of two annual meetings had to be met by the Secretary. These expenses, such as printing programs, publishing proceedings, badges, postage, etc., and $25 as a very inadequate compensation to the Secretary, all amount to $57.16. The other expenses shown above are unavoidable. If our membership were 1,000 the expenses would be but little more.

Trusting that information I have given you will be satisfactory and that during the year to come you will all be blest with health, prosperity and happiness, I am

Sincerely and fraternally yours,
EUGENE SECOR, *Treas & Gen. Man.*
Forest City, Iowa, Dec. 19.

Honey as Food is the name of a 24-page pamphlet, 3¼x6¼ inches, which we are now printing for general distribution among those who should be users of honey. It is just the thing for bee-keepers to hand to every one of their customers, and also to those whom they would like to have as customers. It is very handy in size—just right to go into an ordinary business envelope. It contains 12 illustrations, five of which are somewhat comic, and help to make it attractive. There is a blank space for your name and address. About ⅚ of the pamphlet was written by Dr. Miller, and then we added thereto many new and valuable honey recipes—for cooking and for medicinal purposes. In all, it makes a neat little pamphlet. Send name and address and we will mail you a sample of "Honey as Food."

Prices for quantities, postpaid—25 for 30 cents; 50 for 50 cents; 100 for 85 cents: 200 for $1.40. By express, not prepaid, 500 for $3.00; 1,000, $5.00.



Contributed Articles

Selling Honey—How to Develop a Demand.

BY C. P. DADANT.

I notice in Gleanings a very good method for attracting the attention of the public to the bee-business, and selling large quantities of honey at retail. It is by the exhibition of bees in an observing hive in the grocery in connection with the honey exhibit. The only objection I can see to this method is that it can only be followed successfully in mild weather without injury to the bees thus exhibited. In cold weather the bees would be sure to suffer and would make a sorry sight, and I could point to many a bee-lover who would hesitate to sacrifice even but a few of his bees for the sake of the gain this might bring him.

The method given shows that it is only necessary to attract the consumer's attention to the honey-business, and to show him conclusively that it is wholesome and pure, in order to sell large quantities of it. Thus it is much easier to cultivate a home market than a foreign demand, since we are best known by our neighbors. I will here give an account of the most successful home advertising we ever succeeded in, altho without premeditation on our part.

The undersigned is a member of the Warsaw Horticultural Society, one of the oldest local horticultural associations in Illinois. It has long been the custom for this association to meet monthly at the home of one of its members. In 1889 it was our turn to entertain them, and as the year was a successful one for bees, I askt the Secretary to give us the July meeting, with the view of giving them the pleasure of an exhibit of honey-extracting and comb-foundation making. This was promptly acquiesced in.

It so happened that Mr. Jonathan Periam, then editor of the Prairie Farmer, had promist to attend this meeting and deliver a speech. The announcement of this, together with the promise of our intended exhibit of work attracted a crowd larger than had ever been seen at any of the meetings of this association. Not only did the farmers come en masse, but more than 400 business men of the cities of Keokuk, Warsaw and Hamilton attended the meeting, and our extracting-room was literally packt with men, women and children during the greater part of the day. Three men were kept busy explaining the mysteries of bee-keeping and of honey-extracting, and nearly every visitor tasted of the honey.

This meeting did more to make our business known in our immediate vicinity than any amount of printed advertising could have done, and our sales of honey were henceforth much facilitated.

Any method that will attract the attention of the public and create any enquiry will prove beneficial to the honey interest. Altho honey is the very best of sweets, it is still considered as a luxury by many, and by many others there is such a fear of adulteration that they are afraid to buy it. Do away with the fear, replacing it with confidence, and sell at low prices, and the sales will be almost unlimited. The greatest trouble with our bee-keepers is that they dislike pushing their goods forward, even among their neighbors. They prefer to ship in bulk to some commission-man who will perhaps return to them a price which they would have considered unacceptable if it had been offered them by the home trade. Neither can we blame the commission-man, for it is not his fault if the market is glutted and prices ruinous. Your honey, after being shipt to Chicago or St. Louis, is very often reshipt in detail, even to grocers living within 5 or 10 miles of your home. Let us do away with these methods. If our honey must be sold cheap, let us give the benefit of it to the home consumption. It may not pay us at first to sell to consumers or to small dealers at the price we would get in Chicago, but let us remember that the trade that is built up in one or two seasons may remain with us for years, and perhaps at higher prices, if we take care of it.

We have repeatedly caused producers of honey to find sale at home, by suggesting to them to offer the honey to their neighbors at the same price as they would expect by shipping it. At the present prices of extracted honey a large crop may be disposed of among a few neighbors. Bear in mind, that whatever you sell at home relieves the market of just so much stock, and makes it easier for prices to rise. Honey is now too cheap to go a-begging if the proper methods are followed for the sale of it. Hancock Co., Ill.

Home-Made Foundation for Brood-Chambers.

BY "COMMON-SENSE BEE-KEEPING."

Several years ago I got in a rush when my bees were swarming faster than I could provide them with frames for the new hives made to receive them, so I caught an idea of making the bees build their combs on the underside of the top-boards of the new hives without frames, as straight and as true as a board; so that later on I could slip those new combs into the frames after the plan of transferring them, with but very little trouble.

It was done by tracing the top-board with a line of warm wax, and it workt like a charm, for most of the combs in those hives were built as true as could be desired. One reason for this, however, may be that I always set my hives with a spirit-level crosswise of the way I wish the comb to hang. This gave me a pointer, and so I began to put starters in my brood-frames in the following way:

Cut a strip long enough to slip between the end-bars and shove up nicely against the top-bar. On the back of this strip put stops on both ends, so that when in position it will let the face side of the strip come exactly to the middle of the top-bar. The strip should be made perfectly smooth on the face side, and then wet with scalding water, after which it should be dipt in cold water, and it is ready for use.

Have your wax melted in a dish somewhat deeper than it is wide, with water in the bottom to prevent the wax from burning; then a small paint-brush (a sash tool) is all the machine you want for the business of making starters. Now take the guide-strip from the water and wipe it slightly with a damp cloth, and place it in position in the frame as above described. Don't touch the inside of the top-bar with wet fingers, or the hot wax will not adhere to the portions thus toucht. Now dip your brush into the hot wax, and run it lightly along the top-bar against the guide-strip, and there you have a starter. If you wish to make it heavier, stroke it again with hot wax and it is done. Care should be taken to not thrust the brush so deeply into the hot wax as to reach the water that is under it, or it will not work as nicely. When I wish to let loose of my brush I have it fixt so that I can hang it inside the tin bucket that holds the wax, without falling therein.

Hold the strip in place until the starter is cool, and then push the top of the guide-strip back from the starter, and it will loosen nicely. The cooling of the starter may be hastened by the use of a fan or cold water.

When I found that the bees were delighted with these flat starters, I began to make them wider by using a board that would fill the frame in the place of the guide-strip, and a wider brush, and was surprised at the readiness with which the bees built cells on those flat foundations in the hight of the season; but when the work got slack outside they devoted themselves to some amusing antics in the way that fixt the unfinisht ones in the ends and corners of the hive.

Make starters first, and if you fail a few times melt the scraps over, and try again till you can make a full sheet of foundation, except at the corners, which the bees will quickly fill when they get to that.

You will soon observe that drawing the hot wax with a brush seems to lengthen its grains, and render it tough until it is melted again. This is a great point in favor of its use. If put in rightly it won't sag at all, and is quickly put into the frames, and is better adapted to being workt in the winter than the other kind, besides being cheaper. I call it "common-sense foundation." Pennsylvania.

QUEEN MAB.

A Christmas Story for Young Bee-Keepers.

BY GEO. H. STIPP.

(Written expressly for the American Bee Journal.)

A certain old Spanish romancer once wrote a story in which he described a very beautiful, though mysterious island lying far to to the west beyond the limits of somewhere. Indeed, it was pictured as a land full of sunshine and flowers and happiness—a veritable land of milk and honey. Of course, it was inhabited by genii and fairies and elves and all those wonderful creatures of magic and fancy which can only dwell in mysterious countries not outlined in the maps of our school-books. Notwithstanding this oversight on the part of the wise men who make geographies, there is not a boy nor a girl who has not read stories, perhaps whole histories, of fairyland and its inhabitants.

Strange to say, there is a land—a land of reality—which in many ways, resembles and even bears the very name of that fabled land of Spanish lore. It is the land of gold, the land of perennial fruits and flowers, the land of the setting sun—CALIFORNIA.

* * *

It was Christmas in the year eighteen hun——well, the chronology of my story matters little. Suffice to say it was Christmas, as bright and fresh and clear as pearl from royal diadem. The sun was shining warmly; the grass springing from roots recently washt by refreshing showers, had carpeted the earth with green; the pure white "snowdrops" hung pendant from long since denuded stems in the rusty brown woods, and dainty flowers here and there peept forth shyly from mossy banks, seemingly determined to join in the "glad tidings," which all Nature, on this day, seemed intent on singing. In fact, it was just such a perfect day as one might expect to read of in the fairy California of old—just such a day as one may often see and enjoy in the real California of today.

Under such a sky, in such a land, little wonder that Golden-locks, sweet child of Nature, satiate with material joys of the happy morn, restlessly tossing to and fro in the hammock which swung on the front porch in the warm sunshine, should at last close those questioning windows of the soul and sink slowly into restless slumber.

* * *

Queen Mab had just ascended her royal throne on this eventful day, when she called her swift-winged and faithful subjects about her aud proclaimed a day of feasting and joyous merry-making.

Altho the fairies were not unaccustomed to seasons of idleness, this day was so fair and warm that the flowers were opening their buds and distilling sweet nectar for the gods. The fairies, therefore, were loath to understand why work must cease at such a time in their busy kingdom. Imagine their dismay when the Queen also issued an order commanding that the stockings of every baby fairy be forthwith brought and hung about the royal fireplace.

"Who ever heard of fairies wearing stockings?" said some.

"What on earth can her Majesty want of stockings?" quoth others.

And there were others who declared—"Verily, the Queen is mad. We must seek a new ruler."

Now, of course, this was as foolish as it was impossible, for fairy queens are born with the greatest care, pomp and circumstance, and it would take at least sixteen days before a new queen could be raised to the throne. There were likely to be many chilly, wet days before spring and summertime would come, and such weather would hardly do in which to rear such delicate creatures as baby queens. Besides, at this time of year there were no elves nor spectres nor brownies to look after home affairs, take care of the little ones, or make a big *roar* when things were not attended to just right. *They* would not come to life until springtime. The raising of a new queen to the throne was, therefore, quite out of the question.

Nevertheless, the fairies made a great hubbub about the matter, the noise sounding more like the roar of a waterfall than the voices of fairies.

When the Queen heard the commotion, she sent her Privy Council to inquire the cause. When this august body returned, the venerable Countess Marie de Poncefort Pompom, Attendant Extra-ordinary and First Keeper of the Royal Dust-Brush, rose to her feet and addrest the Queen. Although the Countess' wings were torn and tattered—by much experience with the world—because of her great wisdom she was always shown the greatest deference and listened to with markt attention by the Queen and her subjects.

"O Queen," said she, "may it please your most noble Majesty to know that the populace without fails to comprehend your Majesty's desires when your Majesty declares a season of festivities and idleness on such a sunshiny day as this, and furthermore demands the stockings of all the infants of our race. They protest (and, your Majesty will allow, with ample justification), that no one ever heard of fairies wearing stockings, and, moreover, there is not such a thing in all the kingdom."

Now, instead of getting angry, as some queens have been known to do, and stamping her foot and crying, "Off with their heads," Queen Mab realized that she had made a grievous mistake, and like a very sensible queen quietly said:

"Since my subjects know not the use of stockings, I will not expect of them impossible things. I will withdraw my dictum. Go forth unto them, my Lady, and say to them that when I, the Queen, made my bridal journey, I read something on the leaf of a maple tree, saying that the children of the great human giants, who are as big as mountains, always hang up their stockings at Christmas time in expectation of beautiful gifts from their patron saint, Santa Claus; and, having at heart the welfare of my children, I thought that this great spirit might remember our little ones if we only hung up *our* stockings. And if I may express the opinion, the giants are big and strong enough to look out for themselves and need presents less than we.

"We will, however, proceed with the feast. Call my couriers and send them forth to gather fresh stores. Let us eat, drink, and be merry, in honor of Him who loves even such small creatures as we."

The fairies were much imprest by the Queen's wisdom and thoughtfulness, and all voted that she was a most learned and loving ruler.

Immediately on hearing the summons, a thousand fairies leapt into the air, spreading their gauzy wings, which glinted in the bright sunshine like irridescent gems, as they sped over hill and dale. They flitted from flower to flower, stripping stamens of the grains of gold and packing them in little baskets which they carried for the purpose. They were not long in gathering a sufficiency of the golden fruit, and the feast was soon prepared.

Hardly had the fairies gathered about the festal board, when there was a sudden shrill cry of danger, and the guards came rushing in from the gates of the city, shouting: "To arms; to arms; the enemy is at hand."

Although dismayed at this sudden challenge, the fairies were not long in falling into line of battle, each carrying a sharp spear ready to pierce the foe. They soon began pouring out of the gates—first a line of skirmishers; then the regular army in platoons and solid-flankt regiments until the air seemed seething with millions of angry fairies, clad in beautiful brown-and-gold uniforms.

The battle soon began. The enemy, rascally cannibalistic fellows in coats of yellow and black, were fierce and bloodthirsty, fought like demons, and dragged down many a brave fairy to be devoured alive. The fairies fought bravely in defense of home and country, and soon the battlefield was strewn with dead and wounded. Charge after charge was made, but the ranks of the fairies became badly broken, and it was evident one more charge would tell the tale and write its history on the page of this beautiful Christmas day. On, on, dash the brave fairies; on, on———

* * *

Golden-locks' head tost, a sigh escaped from the pouting lips, the great wondering eyes opened once more just as a buzzing bee, which had been hovering over a blossom on the trellis near by, winged its way out of sight.

"Wy, papa, I just deemed 'at 'ose horble yellow jack'ts were just a-eatin' up all 'oor bees aden"—for Golden-locks' papa kept bees in the land of milk and honey, the land of fruit and flowers, the land of the setting sun.

San Francisco Co., Calif.

[We regret that the above story did not arrive in time for last week's issue of the Bee Journal—it would have been a little more appropriate then. But it will doubtless be read as eagerly by the young folks now as earlier in the holiday season.—EDITOR.]

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

Langstroth on the Honey-Bee, revised by The Dadants, is a standard, reliable and thoroughly complete work on bee-culture. It contains 520 pages, and is bound elegantly. Every reader of the American Bee Journal should have a copy of this book, as it answers hundreds of questions that arise about bees. We mail it for $1.25, or club it with the Bee Journal for a year—both together for only $2.00.

The Names and Addresses of all your bee-friends, who are not now taking the Bee Journal, are wanted at this office. Send them in, please, when sample copies will be mailed to them. Then you can secure their subscriptions, and earn some of the premiums we are offering. The next few months will be just the time to easily get new subscribers. Try it earnestly, at least.

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for $1.10.

CONVENTION PROCEEDINGS

Report of the Minnesota Convention.

BY J. P. WEST.

The Minnesota Bee-Keepers' Association met at Minneapolis, Dec. 8, held their ninth annual meeting during one day, and adjourned to meet at the State Fair, in September, probably on Wednesday. The society concluded to try the experiment of holding a meeting at the time of the Fair, for several reasons, viz:

1st. Many of our members are horticulturists, and desire to attend the meetings of the society.

2nd. At the State Fair we shall be certain of reductions in railroad fares.

3rd. It is a better time of the year for farmers to get out and take a rest, and see the sights in the Twin Cities, besides attending a first-class fair and the meeting of the bee-keepers; and we shall be more likely to have our friends from other States present to assist us.

I hope the experiment will prove a success. We had 23 present at this last meeting. The following officers were elected:

President, J. P. West, of Hastings; Secretary, Dr. L. D. Leonard, Syndicate Block, Minneapolis; and Treasurer, L. E. Day.

The society has over $80 in the treasury. A good meeting was held, and considerable business was transacted. Many bee-questions were discust. Five members handed in their dollar for the United States Bee-Keepers' Union, which has been sent to the General Manager, Hon. Eugene Secor, Forest City, Iowa.

I wish to call the attention of the Minnesota bee-keepers to the importance of joining the United States Bee-Keepers' Union, and also the necessity of sending in their dues to the Minnesota Bee-Keepers' Association, if members, and if not, now is a good time to join.

Many will remember the account in the July 15th number of the American Bee Journal, of Mrs. B. J. Livingston's great affliction. A letter to the President, from her, written by her daughter, was read at the convention. The letter reads as follows:

DEAR MR. WEST:—I was glad to get your letter and would like to tell you and my fellow bee-keepers some of my experiences in this dark country to which I have come, but the family are very busy making all snug for winter, so I will not ask them to copy a very long letter. I write upon slates, and as I sometimes write two or three lines in the same place it is not easily copied. Blindness has its compensation. That which I prize most after the words and deeds of kindness is the freedom from responsibility. Then I can never tell what my own family have been to me since the darkness came. I could not make you understand. My health is good now; there has been entire freedom from pain since the operation of iridectomy in April. I am happy to say I can wash dishes, milk-cans, etc., help at cleaning vegetables, dressing poultry, and knit, knit, knit. If I get out of yarn, I am like an opium eater without the drug.

I wish my daughter, who takes care of the bees, could attend your convention. She is doing her best for "mother's bees," but it is all from a sense of duty—she has no enthusiasm. She was pleased to harvest about 1,500 pounds of fine honey the past fall, but she does not care for it as she does her poultry yard. I would like to compel her to love bee-keeping, as I have robbed her by my sickness of the practice of her chosen profession. She holds the diploma of a trained nurse.

You may assure my bee-keeping friends that I am not unhappy. Our 38 colonies of bees put in the cellar the last of November were in good condition.

With kindest regards, your friend,
Per L. G. L. MRS. B. J. LIVINGSTON.

Mrs. Livingston was unanimously elected a life honorary member of the Association.

It has been a pretty hard year for the majority of bee-keepers in Minnesota, the crop of honey being very short in most localities. But there is lots of enterprise and determination among the bee-keepers, and when we do get a good year things will be lively at our fairs, as the exhibit at our State this year clearly demonstated.

BEEDOM BOILED DOWN.

Treating Foul Brood.—The editor of Gleanings having advised that in the fall foul-broody colonies should be starved till all the infected honey was consumed, then two or three lots dumpt into a single hive on foundation and fed, F. A. Gemmill asks why not take McEvoy's short-cut, and dump them on five combs of sealed honey. Editor Root says he is glad to acknowledge that plan shorter, giving the bees very much better chance for wintering, providing McEvoy is sure there will be no recurrence of the disease in the future.

New Honey-Package.—The Canadian Bee Journal announces that its publishers have been seeking, together with its editor, for an improved honey-package, and the result has been highly satisfactory. Just what the package is, is not stated, but it is hinted that it is not tin, which discolors honey, but something novel, strong and cheap, and useful where tin could not be used. Twenty-five 10-pound packages can be packt in a sugar barrel, which costs 10 cents, and being in a barrel the honey can be shipt at a lower freight rate.

Wanted to Shake.—The two H's of Review want this "boiler" to shake, he of the shorter name desiring it because the department is "enough like 'this 'ere' for exchange of civilities;" while he of the longer name and form wants the style of this department shaken off or a name put at the top. The first invitation is Hastily and cordially embraced with a warm clasp, but the second is "respectfully declined with thanks." This department is all copied, style and all, and if it had a style of its own it couldn't afford a fresh one for such second-hand stuff.

Queen Stinging a Worker.—The rule is that a queen will never demean herself by stinging anything less than royalty, and a statement of an exception witnest by an American bee-keeper was received with some doubt. J. K., in the Australian Bee-Bulletin, gives a circumstantial account of an instance that came under his observation. He put a worker into a cage which contained a virgin queen. They dasht together, and the worker was stung to death at once. A second worker was put in. Dashing at each other, they suddenly seemed to realize that a mistake had been made, and ceast fighting.

Wintering on Sealed Combs.—F. A. Gemmill repeats in Gleanings that he wintered bees successfully on combs filled solid with honey in a section of a Heddon hive, putting under a two-inch rim to give the bees more room, using 20 colonies for the test. He says the plan of wintering on solid combs is McEvoy's, who has practiced it for 20 years. "Mr. McEvoy claims that empty comb is a detriment rather than an advantage, as the cluster remains unbroken until the approach of spring; and there being no brood-rearing at an unnecessary time, the bees winter better, and spring-dwindle less; in fact, they seem to boom right along when so prepared."

What Shall Cover Sections on the Hive?—There is difference of opinion as to whether sections in a super should have some kind of covering fitting close down to them, or whether they be covered, as some have exprest it, "with a layer of air." In Gleanings, M. A. Gill says: "I use no cloth or quilt on top of the sections, believing that I can keep the sections cleanest without them." The editor of Gleanings has been making a visit to Miles Morton (the man who has a "brother-in-law"), and says that while he cannot bring himself to believe that covering the tops of the sections is exactly the right thing, he must yet admit that Mr. Morton produces sections of honey in every respect first-class, said sections being closely covered with enamel cloth, or else by slats. F. Danzenbaker stoutly defends the practice of using paraffine paper directly over the sections, securing it there by some kind of packing over the paper. He admits there will be some propolis, but less of the paraffine paper than on other materials. But his chief object in using it is to prevent the escape of warmth from the super.

Cane vs. Beet Sugar.—Across the ocean it has for long been insisted that cane and not beet sugar should be used for feeding bees, while on this side it has been held that granulated sugar was one and the same thing, whether from cane or beets. Now comes the other side on this side. That is, the other side of the question is maintained on this side of the water. L. A. Aspinwall, in Review, who has heretofore used a quart of water to 12 pounds of sugar, found he had to use this year double the water, and even then the syrup was gummy. Owing to the Cuban war he finds beet-sugar has displaced cane. He then got "Diamond A," which seemed all right.

Rearing Queens.—Five conditions are indispensable to obtain good queens: 1. The queen furnishing the eggs must be of good stock. 2. The larvæ chosen for qeeens must not be more than three days old; for it is known that the food for the first three days is identical, whether fed to queens or workers, but differs afterwards. 3. The royal cell must have a position suitable for the workers to give it the proper dimensions. 4. The colony should be at the culmination of its development. 5. Finally, queens must not be reared by feeble colonies, for the royal larva may suffer from lack of care, nourishment, or heat.—Gerstung's Bienenzucht.

Equalizing Brood is practiced by some bee-keepers in spring, but D. W. Heise, in a paper reported in the Canadian Bee Journal, declares he equalizes brood "after the honey season closes." His reason for doing so is that some colonies not having swarmed, and having stored large surplus, will have large numbers of old bees that will die off before winter sets in. Equalizing the brood will give these colonies young bees for winter. He also practices putting the heaviest combs of honey at one side, grading down to the lightest at the other side, with the view of avoiding the possibility of having the bees stranded on one side of the hive with empty combs while abundant stores are out of their reach on the other side.

Grading by Samples or Pictures.—In Gleanings, "Morton's brother-in-law" gives his plan of grading section honey. He has before him a sample of two sections of each of the grades of honey into which he desires to assort his honey, and whenever he is in doubt as to any section, he compares it with the sample. He does not say how the samples are chosen in the first place, nor why, if they are chosen by himself, the same judgment that selected the samples might not equally be used in judging in the same way all the rest. A picture is given of the four grades into which he would assort, and this illustrates the idea suggested by Editor Root to use pictures for grading. The remark is made that the No. 2 is not well shown in the picture, as one of the sections is of light weight. It is difficult for a picture to show light weight, color, etc.

Non-Swarming, or as near to it as has been reacht, says Skylark in the Southland Queen, can be accomplisht in this way: Always supposing your bees are in first-rate condition, place two broad frames of sections on each side of your supers, one comb of unsealed brood and bees from the brood-nest, and fill up with empty extracting-frames or foundation. This will jerk the meanest colony of bees into the sections that ever lived. When they get rightly started put an extracting super under them, taking out all the extracting-frames from the comb-honey super, and putting them into the lower super. Fill up with empty combs or foundation. Now fill up your upper super with sections, and the job is done. You can produce a super of comb honey, or two or them, on the top of every extracting-hive, and come as near to non-swarming as you will ever get.

Comb-Building.—L. Stachelhausen, in a very interesting article in the Southland Queen, says that bees first start the midrib as a straight wall, and after it has progrest a little way they start the sidewalls on it, then draw out with their mandibles the sidewalls, and this drawing out it is that gives the pyramidal form to the base. When foundation is given them, they invariably draw out or thin the sidewalls, no matter how thick they may be, but they cannot thin the base. So he thinks the sidewalls of drawn foundation cannot be thinned if they are more than a certain depth, and the base never. Bees sometimes take wax from old combs in the hive and use it for building, but only when they cannot secrete wax. If wax scales fall to the bottom of a hive, as when a swarm is hived, such scales are never used for comb-building. Wax carried into the hive from outside is used as propolis, and he has never known it to be used for comb-building.

The Weekly Budget.

Mr. Fred Sievert, of Porter Co., Ind., writing Dec. 17, said:

"The American Bee Journal is a welcome visitor. I don't see how I could do without it."

Editor Hutchinson, of the Bee-Keepers' Review, said in his November issue:

"'Beedom Boiled Down' is the heading of a most excellent department in the American Bee Journal."

Mr. J. A. DeWitt, of Ontario, Canada, when renewing his subscription, wrote us:

"I am pleased with the Bee Journal. I read one article in it that is worth more than the price of the Journal."

Mr. D. W. Heise's Apiary is pictured in the last number of the Canadian Bee Journal. He is another of Ontario's good bee-keepers—one of the more youngerly class. He is fast coming to the front as an apiarian writer, being a frequent contributor to our Canadian contemporary.

Mr. D. B. Abbott, of Osage Co., Kans., wrote us, Dec. 8, that he was starting that day for California for the good of his health. We trust he may find in abundance what he goes for. Would like a trip to California ourselves. Think it would be a good thing for us, but it looks as if we'd have to stay here now and keep the Bee Journal going regularly to our readers.

Mr. G. C. Allinger, of Marion Co., Ohio, sent the following with his renewal subscripton for 1898:

"With the help of the American Bee Journal I secured a little over three tons of comb honey from 61 colonies the past season, and sold it for 11 cents per pound at home."

Mr. F. A. Gemmill, of Canada, has a son. He's not a new one. He was 21 years of age last month, and, judging from a fine portrait of him in the Canadian Bee Journal, he is a real "chip of the old block." His full name is "Raeside Alexander Gemmill," and he intends "to follow apiculture." "With his father's knowledge to begin on, and his own experience to add to this, he should develop into an exceedingly useful member of the fraternity." So says Editor Holtermann.

Mr. Geo. H. Stipp, of Alameda Co., Calif., wrote us recently:

"So far as I am concerned the American Bee Journal itself is sufficient inducement for subscription. The man who cannot get $1.00 of good out of its 52 numbers, can't get a dollar's worth out of anything, and ought not to be a bee-keeper."

Mr. G. M. Doolittle, of Onondaga Co., N. Y., is a great man in more ways than in avoirdupois. We have met him twice, and each time our previously-formed estimate of his sterling character has been hightened very much. While he is known very widely as a painstaking, practical bee-keeper, yet he has another side that cannot be shown on paper or through his pen. Editor Hutchinson pays a very just tribute to him in the following from the Review, which we are glad to reproduce here:

"Doolittle was certainly what Gleanings called him, the 'uncrowned king of the Buffalo convention.' I think no one will be offended if I say that I think that he was the best speaker there was there. No one who has simply read his staid, sober, matter-of-fact articles in the bee-journals would dream of the manner in which he can flavor his speeches with anecdote and illustration. For instance, he was telling how some old man was working himself all but to death that his children might not be compelled to begin at the foot of the ladder as he had done. Mr. Doolittle askt him if he had not enjoyed himself when he began house-keeping in an humble way, and he and his young wife had workt cheerfully and happily as month by month they added to the comforts of their home? The old man was silent a minute and then admitted, 'They were the happiest days of his life.' 'Would you rob your children of this happiness?' askt Mr. Doolittle. I don't suppose Mr. Doolittle knew it, but it brought tears to my eyes, so clearly did it bring back those happy days when wife and I began house-keeping in an humble home built by my own hands, and 'workt cheerfully and happily as month by month we added to the comforts of our home.'"

MESSRS. CHAS. DADANT & SON—the old, reliable, and extensive comb foundation makers, and also for years regular advertisers in the American Bee Journal—had this to say in a letter dated Dec. 13:

"By the way, we are making our usual annual review of correspondence, and we find that the American Bee Journal is again at the head, among bee-papers, as an advertising medium. This shows that you are following the right track, evidently. Best wishes. We are all well as usual."

MR. S. T. PETTIT is one of Ontario's oldest and most experienced bee-keepers. He is also a man of fine abilities and great usefulness in other lines as well. In the Canadian Bee Journal for December Editor Holtermann had this kind reference to Mr. Pettit and his qualities as a honey-producer:

"We have handled large quantities of both extracted and comb honey, and by means of exhibitions and otherwise have had large opportunities of seeing and knowing of the skill of leading bee-keepers in Canada for taking a first-class article of comb honey, and we believe we are safe in saying that Mr. S. T. Pettit stands at the head of the list in the country for producing the best and most comb honey per colony. His yield per colony for the last 20 years we also believe to be ahead of any one else."

We have the pleasure of a personal acquaintance with Mr. Pettit, and are sure that the best bee-keepers in Ontario appreciate him and his sterling worth both as a bee-keeper and a Christian gentleman.

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Questions on Bee-Management.

Would it be advisable with a 10 or 8 frame hive with prolific queen, to add an upper brood-chamber about three or four weeks before the honey-flow, and when putting on the second one take six or seven frames from the lower one and put in the upper, and give comb on full sheets of foundation in their place? Now, when these have all hatcht out, it will be about the time of the honey-flow, within four or five days, and I would then take the upper story off and give them two supers with sections and full sheets of foundation. In this locality there is no trouble with a good colony getting two supers of honey, and with some two and over, where very strong, but when more than two it is generally taken in September, and is very dark and sells cheap.

All honey in supers finisht by about Aug. 10 is fancy white (sweet clover) in looks and flavor, and from Aug. 10 to Sept. 10 it is fancy amber; and then comes the late and dark flow from asters, smartweed, etc.

Now, by using the method described, could I not get two supers of white and one of amber, and then crowd them down to fill the brood-chamber for winter supplies with the late dark flow? It would put a stop to brood-rearing, by their crowding the queen early in the fall, but with a very full hive of bees and plenty of stores for winter, do you think there would be a larger mortality among the old bees?

None of my 8-frame hives have less than 30 pounds of honey, and the 10-frames have 40. I take off the supers early, where I can, and have only fed one colony this fall (an 8-frame one); this was a young Texas queen and nucleus made June 2, and very prolific; they gave me 60 4¼x1⅞ sections of honey. I gave the last super (No. 3) with 12 sections to give them room when I took off the second one, but they filled the 12 and were still full of brood and bees down below, so I took out a frame from below and put on a super, and gave them uncapt sections in a small holder, so it would run, and they had to take it down below and gradually crowd out the queen. Did I use the best method of making them provide for winter? NORTHERN ILLINOIS.

ANSWER.—In the main, you're on the right track. Before the honey-flow comes, it is well to let the queen have all the room she will occupy. But be on the lookout for breakers. If you're not careful you may do a lot of mischief by dividing forces too much when you give a second story early, thus scattering brood too much and getting it chilled. Work according to the strength of your colony. A very strong colony can stand a good deal, especially if the weather is warm, but if a colony isn't very strong, and you divide it in two stories as you propose, and then there comes a cold, wet time, very likely you'll wish you hadn't meddled with it. Keep on the safe side. A very safe plan is to put your second story below, letting the bees work down at their own sweet will. No risk in that. But if the colony is strong, you may hurry up matters a little by putting a frame of brood in the lower story. You will see that the point is not to get the brood scattered too much.

But it isn't a good idea to crowd the queen late in the season. What need? When you take off sections give back that second story, putting it under the other, then the bees can work down and occupy as much of it as they need without crowding the queen. If you winter them in the cellar, the lower story can be taken away late in October.

Removing Pollen from Brood-Combs.

How is pollen to be removed from brood-combs? I united two swarms and had the combs extracted. In this operation the pollen was not removed. Upon advice, I used sweetened water and let the same sour, which resulted in the removal of a portion, with water from the faucet, but it did not seem satisfactory. NUTMEG.

ANSWER.—It would have been a good thing if, after the souring had began, you had encouraged it by sprinkling the combs so the fermentation would have loosened up the pollen, and then by still further soaking you might have thrown the dissolved pollen out with the extractor. If that can't be done now, you can go to the opposite extreme, keep the combs in a dry and warm place, as overhead in the kitchen, and when the pollen is dry enough it may rattle out. I have an indistinct recollection of some one giving something that may be still better, and possibly some one may tell us what it is.

Transferring Bees from Trees.

I have several colonies of bees in trees in the woods that I wish to transfer to frame hives. Can I do it in the spring, as soon as it is warm enough for bees to fly well, if I cut out enough honey and brood-comb to fill the frames, and then put the bees in and leave them a few days until they get the comb fastened, and then move them home? MAINE.

ANSWER.—If the bees are less than a mile away, the probability is that when you move them they'll go back to the old place, if the business is done after they commence flying in the spring. If they are moved a mile or two there will be little likelihood of such trouble. Possibly there might be such a thing as your cutting off the part of the tree that contains the bees and letting it down carefully with ropes so as not to break the combs, keeping the bees in these gums through the winter at home, and then transferring in the spring or else leaving them in the gums till they swarm.

☞ See "Bee-Keeper's Guide" offer on page 813.

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Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

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Editorial Comments.

The Happiest New Year of your life, to each and every one of our readers, is our sincere wish. And may you have many of them.

◆

The Northwestern Convention Report will be commenced next week, and continued weekly thereafter until completed. We think it is going to be very interesting.

◆

The Annual Index appears in this number of the Bee Journal. That accounts for this and several other departments being shortened this week. But next week we hope to have them all in, and of respectable length.

◆

Volume XXXVII of the American Bee Journal closes with this number. Getting old, isn't it? Well, so long as it does what a good many of its best friends say of it—"improves with age"—perhaps no one will object to its advanced years.

◆

A Number of Good Contributions are awaiting their turn, or a place in these columns. We had to use so much space in the past few numbers for the Buffalo convention report, that it was quite impossible to keep the department of "Contributed Articles" up to its usual space.

◆

Saving Bee-Papers.—G. M. Doolittle seems to place a high value on bee-papers. R. C. Aikin says that in his early years of bee-keeping he subscribed for the American Bee Journal, forgetting the exact date as his journals are all packt away, but it was about 20 years ago, and the volumes since are all bound and preserved. Referring to this, Mr. Doolittle says in the Progressive Bee-Keeper:

"Reader, just turn to Friend Aikin, and see what he did with the American Bee Journal. Then GO AND DO LIKEWISE; only I want you not to allow your back volumes to "lie packt away" till you don't know the year dated on the first volume you have. I have nearly every issue of every bee-paper publisht in the United States, bound, and at "my fingers' end," and unless I was going out of the bee-business $500 would not buy them, so highly do I prize them, for they have been very largely the means of making me what I am as a bee-keeper. Not only that, but I am continually getting new thoughts out of them, as I handle them over from time to time in search of something which happened in the past that I wish to know about."

◆

Co-operation Among Bee-Keepers.—The Australian Bee-Bulletin strongly urges co-operation among bee-keepers, citing the success of the butter-men, whereby the price of butter was permanently raised. Some action has been taken by Australian bee-keepers toward combining with the wool-men, but the tendency now is toward co-operation with the butter-men. Butter and honey, one would think, would go together better than butter and wool.

◆

The New Union's Report, as given on page 817, will be found very interesting reading. It is short and right to the point. Mr. Secor's suggestions are most excellent. Why not have the 1,000 membership this winter, so that the Union can take up the work in good earnest which it has planned to do? We are receiving the fees of new members almost daily, but they ought to come in much faster. It would be better, perhaps, to mail your membership dues direct to General Manager Secor, but we will be glad to continue to receive and forward as heretofore if it is more convenient to send to us.

◆

Bees and Honey in the Bible.—Mr. H. Dupret, of Montreal College, Canada, sent the following from an old Greek version of the Bible:

Having sent "the idle fellow" to the teachings of the "ant" (Prov. vi. 6), Solomon, according to an old Greek version (Septuagint), quoted also by ancient writers, sends him also the Bee. The passage may be rendered thus:

1. Go also to the Bee, and learn how industrious she is, and how honorable she deems labor;
2. The fruit of her labors Kings as well as peasants use for health purpose:
3. For a lovely and illustrious being she is; altho feeble in bodily strength, because she has practiced wisdom she has been crowned with honor.

◆

Trans-Mississippi Exposition Bee-Notes.—The architect for the Exposition is now busy at work on the plans for the apiary building to be used by the Bureau of Bee-Industries. Bee men and women who visit the Exposition next summer may look for about the finest-arranged building ever opened to the exhibition of their products.

Rev. Emerson T. Abbott, of Missouri, has been appointed a member of the Missouri commission. We may reasonably look for a very fine honey exhibit from his State.

Mr. Edward Kretchmer is spoken of as the proper person to place in charge of the Iowa honey exhibit. Mr. Kretchmer stands in the front rank among bee-men of that State, and his wide experience among the fairs and exhibits make him a valuable man for that position.

The Central California Bee-Keepers' Association has appointed Messrs. O. W. Sterms, F. E. Brown, and W. A. H. Gilstrap, a committee to investigate the advantages, cost, plans, etc., of making an apiarian exhibit.

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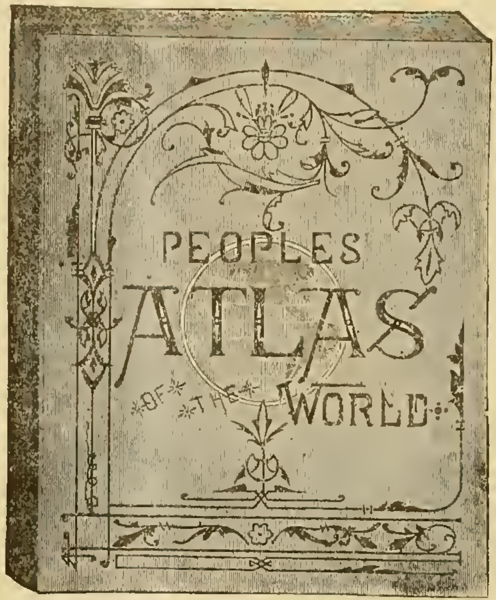

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Franklin, Pa.

California.—The annual meeting of the California State Bee Keepers' Association will be held on Monday, Jan 10, 1898, commencing at 2 p.m. The California Bee-Keepers' Exchange will hold its annual session on Tuesday, Jan. 11 at 2 p.m A full attendance of members is desired. Mr. Cowan, editor of the British Bee Journal, will be in attendance. Thos. G. Newman will also attend, health permitting. PROF. A. J COOK, Pres.

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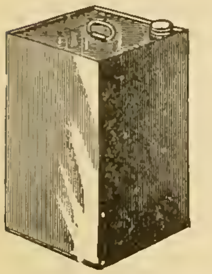

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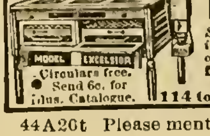

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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Dec. 13.—Fancy white 11 to 12c. No. 1, 10c.; fancy amber, 8 to 9c ; No. 1, 7c.; fancy dark. 7c. Extracted, white, 5 to 6c ; amber. 4 to 5c.; dark, 4c. Beeswax, 26 to 27c.

The demand for comb honey is not satisfactory, and it can be bought at even lower prices than quoted, where it is not in the hands of regular dealers. There seems to be no outside demand. Extracted without special change. Beeswax is scarce.

Milwaukee, Wis., Dec. 13.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 9 to 10c ; fancy dark, 8 to 9c. Extracted, white, 5½ to 6c.; amber. 4½ to 5c. Beeswax, 25 to 27c.

This market has been fairly sustained on honey since our last report. Values remain about the same, as there has been a very good consumptive demand, especially for extracted, while the comb honey has seemed to accumulate with increast receipts, and we feel to meet the demand even if at a reduction from quotations. There seems to be more demand from those who eat honey than in former seasons, which is a good feature of the trade which we desire to encourage. We are expecting a good trade from this forward.

Cleveland, Ohio, Dec. 15.—Fancy white. 12 to 12½c.: No. 1, 11 to 12c.; No. 1 amber, 9 to 10c. Extracted. white, 6 to 7c.; amber. 4 to 5c. Beeswax, 22 to 25c.

New York, N. Y., Dec. 22.—Fancy white 11 to 11½c.: off grades, 9 to 10c.; buckwheat and mixt, 6½ to 7c. Extracted, California white, 5 to 5½c.; light amber, 4½ to 4¾c.; white clover and basswood, 5 to 5¼c.: buckwheat, 4 to 4½c ; Southern, 50c. a gallon. Beeswax is in good demand at 25 to 27c.

Our market remains quiet. Fancy grades of white comb are about cleaned up. and these would find sale on arrival at quotations. We have a large stock of buckwheat, mixt, and off grades of white, and, as the demand for these is very light, we cannot encourage further shipments for the near future. Extracted of all kinds is selling fairly well.

Minneapolis, Minn., Dec. 15.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.; fancy amber, 10c.: No. 1, 9½c.; fancy dark 9 to 9½c.; No. 1, 8 to 9c. Extracted, white, 5 to 6c.; amber. 4 to 4¾c.: dark, 4c. Beeswax, 23c.

Market holds firm at above prices. Good demand for extracted. Wax is quiet but firm at 23c.

Kansas City, Mo., Dec. 15.—Fancy white, 10½ to 11c.; No. 1, 10 to 10½c.; fancy amber, 9½ to 10c.; No. 1 9 to 9½c.; fancy dark. 8½ to 9c. Extracted, white, 5½ to 6c.: amber, 5 to 5½c.; dark, 4 to 4½c. Beeswax, 20 to 22c.

St. Louis, Mo., Dec. 13.—Fancy white, 12 to 12 1-2c.; No. 1. 10 1-2 to 11 1-2c.; fancy amber, 9 1-2 to 10c.; No. 1, 9c.; fancy dark, 8c. Extracted, white, 5 to 5 1-2c.: amber, 4 to 4½c.; dark, 3 1-2 to 4c. Beeswax, 24 1-2 to 25c.

We would advise prompt shipments of honey. We do not see any probabilities of better prices. The stock of honey is ample for the demand.

Albany, N. Y., Dec. 13.—Fancy white. 12 to 13c.; No. 1, 11 to 12c.; fancy amber. 8 to 9c.; No. 1, 8c ; fancy dark, 8c.; No. 1, 7½ to 8c. Extracted, white, 5 to 6c.; amber, 4½ to 5c., dark, 4 to 4½c.

There is an ample stock of comb on hand and selling freely at quotations. Extracted is not plentiful and from information received there is not much in the hands of producers,

Buffalo, N. Y., Dec. 24.—Strictly fancy 1-pound comb honey is more active at mostly 10c., occasionally 11c., but all other gradas are dormant and have to be cut to almost any price to move them, ranging from 8c. down to 6c. Extracted is moving slowly at 5 to 6c. for fancy; dark, 4 to 4½c. A liberal quantity can be sold; and, of course, the low grades can be forced off for what they will bring. if owners cannot do any better.

There is no selling pressure of consequence on desirable lots of water white, either comb or extracted, such being held as a rule at full quotations. Amber grades are in greater supply than the demand and market for this class presents an easy tone. Dark qualities are in poor request, despite low asking figures. Beeswax is firm at current quotations, with very little offering, either from first or second hands.

Philadelphia, Pa., Nov. 13.—Fancy white, 13 to 14c.; No 1. 12c.; fancy amber, 10c.; No. 1. 9c.; No. 1 dark. 8c. Extracted, white. 5 to 5½c.; amber, 5c.; dark, 4 to 4½c. Beeswax. 27c.

Honey is arriving very freely; market is a little off. Beeswax is in good demand.

Boston, Mass., Nov. 8.—Fancy white, in cartons. 13c.; No. 1, 11 to 12c.; fancy amber, 10c. Extracted, white, 6 to 7c.; amber, 5 to 5½c. Beeswax, 28c.

No. 1 and fancy honey has sold well during the past 10 days, but off grades and light weight is going slowly. Beeswax is in good demand and but little here.

Detroit, Mich., Nov. 9.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c ; fancy dark, 7 to 8c. Extracted, white, 5 to 6c.; amber, 4 to 5c. Beeswax, 25 to 26c.

Indianapolis, Ind., Nov, 8.—Fancy white, 11 to 13c.; No 1, 9 to 10c.; fancy amber, 9 to 10c. Extracted, white. 5 to 6c. Beeswax, 25c.

Demand for fancy white comb honey and fancy white extracted is exceptionally good, while there is almost no demand for dark or amber comb or extracted honey.

Cincinnati, Ohio, Dec. 22.—There is no change in prices, but rather a slow demand for the holiday season. We quote 10 to 14c as the range of prices for best white comb honey, and 3 1-2 to 6c., for extracted, according to quality. Beeswax is in fair demand at 20 to 25c. for good to choice yellow.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal

Chicago, Ills.
R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.
HILDRETH BROS. & SEGELKEN.
120 & 122 W. Broadway.

Kansas City, Mo.
C. C. CLEMOMS & Co., 423 Walnut St

Buffalo, N. Y.
BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.
CHAS. DADANT & SON.

Cleveland, Ohio.
A. B. WILLIAMS & Co., 80 & 82 Broadway.

Philadelphia, Pa.
WM. A. SELSER, 10 Vine St.
Mr. Selser handles no honey on commission

St. Louis, Mo.
WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.
S. H. HALL & Co.

Milwaukee, Wis.
A. V. BISHOP & Co.

Boston, Mass.
BLAKE. SCOTT & LEE., 57 Chatham Street.

Detroit, Mich.
M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.
WALTER S. POUDER, 162 Massachusetts Ave.

Albany, N. Y.
CHAS. MCCULLOCH & Co., 380 Broadway.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central Avs.

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Chas. F. Muth & Son, Cincinnati, Ohio.
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Sweet Clover (white).	.60	1.00	2.25	4.00
White Clover...	.90	1.60	3.75	7.00
Alfalfa Clover.... ...	.60	1.00	2.25	4.00
Crimson Clover.......	.55	.90	2.00	3.50

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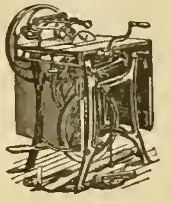

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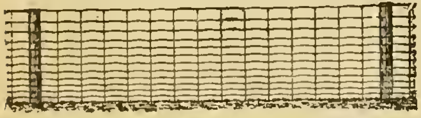

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It is, to board a whole fence weaving gang for a week, when the hired man and Page agent would put up the same amount of **better fence** in a day.

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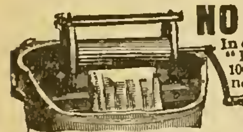

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The BEE-KEEPERS' REVIEW is $1.00 a year, but, for the sake of getting it into new hands, and being able to begin the year with a large list, I will, until Jan. 1st, send free to each new subscriber, a copy of "Advanced Bee-Culture," a 50-ct. book of nearly 100 pages, that gives briefly but clearly the best methods of management from the time the bees are put into the cellar in the fall until they are again ready for winter—32 chapters in all. Those who prefer can have, instead of the book, 12 back numbers of the REVIEW, the selection to be mine, but no two numbers alike. All who send $1.00 now will receive the last four issues of this year free, and the REVIEW will be sent to the end of 1808. If not acquainted with the REVIEW send 10 cents for three late but different issues.

W. Z. Hutchinson, Flint, Mich.

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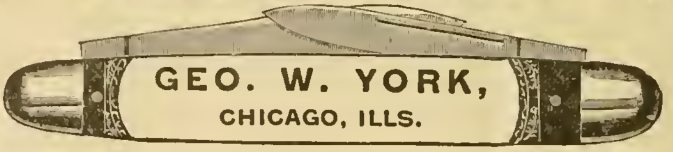
THE "NOVELTY" POCKET-KNIFE!



Your Name on the Knife.—When ordering, be sure to say just what Name and Address you wish put on the Knife.

The NOVELTY KNIFE is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed an AMERICAN BEE JOURNAL reminder, and on the other side, name and residence of the Subscriber.

The material entering into this celebrated knife is of the very best quality; the blades are handforged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring steel, and the finish of handle as described above. It will last a lifetime, with proper usage.

Why purchase the Novelty Knife? In case a good knife is lost, the chances are, the owner will never recover it; but if the Novelty is lost, having name and address of owner, the finder will return it; otherwise to try to destroy the name and address, would destroy the knife. If travelling, and you meet with a serious accident, and are so fortunate as to have one of the Novelties, your pocket KNIFE will serve as as an identifier; and in case of death, your relatives will at once be apprised of the accident.

How appropriate this knife is for a Christmas, New Year or birthday present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, a lady to a gentleman, or vice versa, a son to a mother, a husband to a wife, a brother to a sister or a gentleman to a lady—the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

How to Get this Valuable Knife.—We send it postpaid, for $1. , or give it as a Premium to the one sending us **three new Subscribers** to the BEE JOURNAL (with $3.00), and we will also send to each new name a copy of the Premium Edition of the book "Bees and Honey." We club the Novelty Knife with the BEE JOURNAL for one year, both for $1.90.

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Maple Sugar and the Sugar-Bush,

a book of the same size pages, costing also 40 cents, postpaid. Remember, in order to get one of these valuable books all you have to do is to send $1.00 for Gleanings, and 5 cents postage, and we will give you one of them free. Remember, an old subscriber, to be entitled to this offer, must pay up all back subscription, if any, and send in $1.00 for a year in advance, with 5 cents postage.

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